NEC

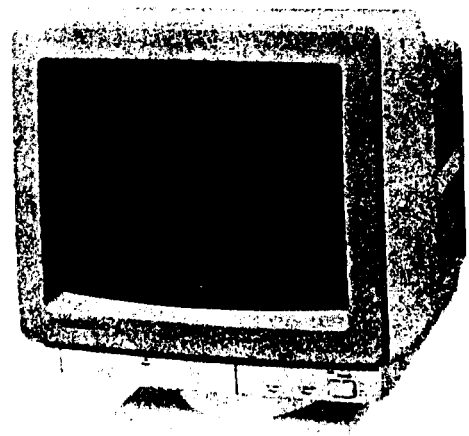
MODELS JC-1402HME/EE/ED/N/R

MULTISYNC COLOR MONITOR

SERVICE MANUAL

PART NO. 599910266

Better Service
Better Reputation
Better Profit



A. Electrical Description

SPECIFICATIONS

Picture Tube	13 Visual inches diagonal 90 degree deflection, 0.31 mm Trio dot pitch Dot type black matrix. Non-long persistence phosphor, Dark bulb, Direct each	
Input Signal	Video : TTL Level Positive ANALOG 0.7 Vp-p/75Ω Positive Sync. : Separate sync. TTL Level Horizontal sync. Positive/Negative Vertical sync. Positive/Negative : Composite sync. TTL Level Positive/Negative : Composite sync. on Green Video sync. 0.3 Vp-p Negative (Video 0.7 Vp-p Positive)	
Display Colors	TTL Input:	8/16/64 colors
	Analog Input:	Unlimited colors
Synchronization:	Horizontal:	15.5 kHz to 35 kHz (Automatically)
	Vertical	50 Hz to 80 Hz (Automatically), Non-interlace
Resolution	Horizontal:	800 dots
	Vertical:	560 lines
Video Band Width	30MHz	
Active Display Area	Horizontal:	250mm (Active display area is changed by signal timing.)
	Vertical:	185mm

Misconvergence	Less than 0.6mm		
Power Supply	AC220 ~ 240 V 50/60 Hz		
Power Consumption	85 W		
Environmental Considerations	Operating	Temperature	0° C to +40° C
		Humidity	30% to 80%
	Storage	Temperature	−20° C to +60° C
		Humidity	10% to 90%

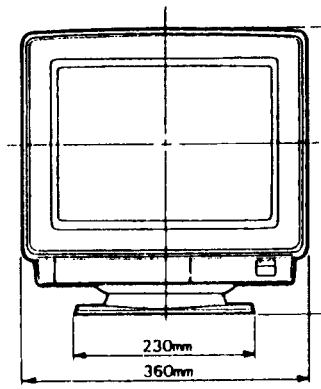
NOTE: The above specification are subject to change without notic for further improvement.

NEC Corporation
TOKYO, JAPAN

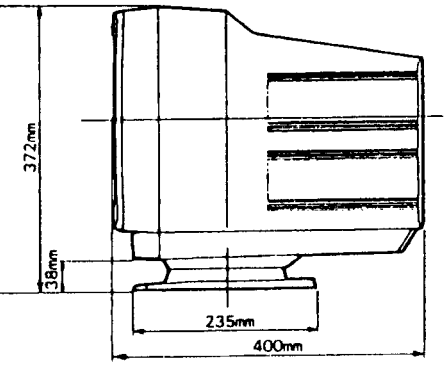
B. Mechanical Description (See below diagrams)

1. Cabinet: Molded plastic cabinet with attachable tilt swivel base.
2. Dimensions: 360(W)×372(H)×400(D) mm

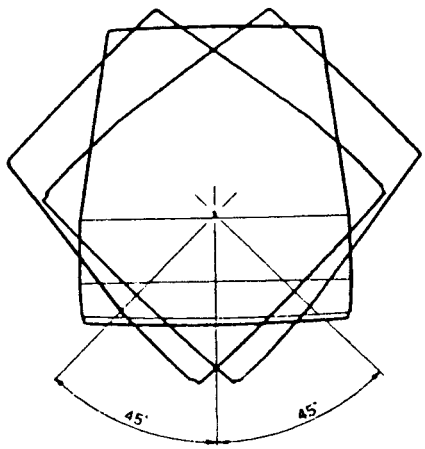
Front

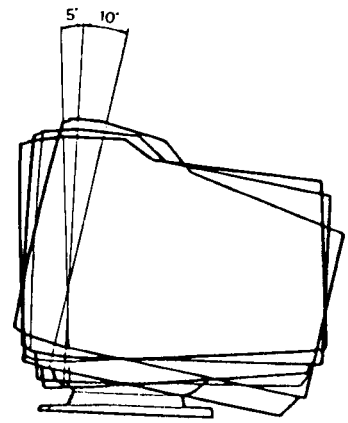


Side



3. Tilt Swivel Range





4. Weight: 16 kg

5. Controls

Rear Controls:
- MANUAL SWITCH
- MODE SWITCH
- COLOR MODE SWITCH

Front Controls:
- POWER SWITCH
- BRIGHTNESS CONTROL
- CONTRAST CONTROL
- V. POSITION CONTROL
- V. SIZE CONTROL
- H. POSITION CONTROL
- H. SIZE SWITCH
- TEXT SWITCH
- TEXT COLOR SWITCH

6. Input Signal Terminal: 9 PIN D-SUB CONNECTOR (FEMALE)
(SEE PAGE 2 FOR PIN ASSIGNMENTS)

7. Power cord
In case of JC-1402HMEE, the end of power cord is as follows.

GENERAL

MultiSync II, The Intelligent Monitor, from NEC, is a high resolution color monitor that automatically adjusts to graphics board scanning frequencies from 15.5kHz to 35kHz (Horizontal), 50Hz to 80Hz (Vertical). MultiSync II gives IBM PC, PC/XT, PC/AT, Personal System/2 (PS/2) and compatible computers users of crisp text and vivid color graphics displays when used with any of the IBM graphics adapters (the CGA, EGA, PGC, VGA or MCGA). MultiSync II can also be used with other IBM compatible graphics adapters to provide users with the widest range of color monitor compatibility and capability available in the market place.

FEATURES

- MultiSync II automatically scans all horizontal frequencies between 15.5kHz and 35kHz, and all vertical frequencies between 50Hz and 80Hz.
- MultiSync II is compatible with the IBM PC, PC/XT, PC/AT, PS/2 and look-alikes.
- MultiSync II is compatible with the IBM Color Graphics Adapter, the IBM Enhanced Graphics Adapter, the IBM Professional Graphics Controller, the IBM MultiColor Graphics Array, the IBM Video Graphics Array and other IBM compatible graphics adapters.
- MultiSync II's wide compatibility makes it possible to upgrade boards or software without purchasing a new monitor.
- MultiSync II has a maximum horizontal resolution of 800 dots and a maximum vertical resolution of 560 lines for superior clarity of display.
- MultiSync II offers both TTL and ANALOG signal inputs, and in the ANALOG mode can display an unlimited palette of colors depending on the graphics board and software being used. MultiSync II automatically adjusts to either a TTL signal input or an ANALOG signal input.
- MultiSync II features a TEXT SWITCH (TTL mode only) with a choice of three colors (paper white, amber and green) displaying word processing, spread sheets, databases or other software in crisp alphanumeric text on a black background.
- MultiSync II has a 14 inch diagonal display and a large, 13 inch viewing area.

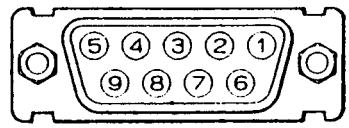
CAUTIONS

When setting up and using the MultiSync II pay special attention to these points.

- To eliminate eye fatigue, don't use the MultiSync II against a bright background or where the sun or other lights can directly shine on it.
- For optimum viewing, the MultiSync II should be just below eye level.
- Allow adequate ventilation all around the MultiSync II so that heat from the monitor can properly dissipate.
- Don't rest the MultiSync II or other heavy objects on the power cord. A damaged power cord can cause fires or electrical shocks.
- Keep the MultiSync II away from high capacity transformers, electric motors and other strong magnetic fields.
- Don't drop the MultiSync II when transporting it.
- Don't use the MultiSync II in damp, dusty, or dirty places.

PIN ASSIGNMENTS AND SIGNAL LEVELS

D—SUB Type 9-P



MANUAL SWITCH OFF

SIGNAL	TTL		ANALOG	
	CGA/EGA COMPATIBLE			
PIN NO.	16 COLORS	64 COLORS	PGC COMPATIBLE	VGA/MCGA COMPATIBLE
1	GROUND	GROUND	•RED	• RED
2	GROUND	SECONDARY RED	•GREEN	•GREEN
3	RED	PRIMARY RED	•BLUE	•BLUE
4	GREEN	PRIMARY GREEN	COMPOSITE SYNC	H.SYNC.
5	BLUE	PRIMATY BLUE	ΔMODE CONTROL	V.SYNC.
6	INTENSITY	SECONDARY GREEN	RED GROUND	RED GROUND
7	NO—CONNECTION	SECONDARY BLUE	GREEN GROUND	GREN GROUND
8	H.SYNC.	H.SYNC.	BLUE GROUND	BLUE GROUND
9	V.SYNC.	V.SYNC.	GROUND	GROUND

MANUAL SWITCH ON

SIGNAL PIN No.	TTL				ANALOG		
	GRAY SCALE	8 COLORS	16 COLORS	64 COLORS	SEPARATE SYNC	COMPOSITE SYNC.	SYNC. ON GREEN
1	GROUND				•RED		
2	—			SECONDARY RED	•GREEN		* H/VSYNC. ON GREEN
3	—	RED		PRIMARY RED	•BLUE		
4	—	GREEN		PRIMARY GREEN	H.SYNC.	H/V SYNC.	—
5	—	BLUE		PRIMARY BLUE	V.SYNC	ΔMODE CONTROL	
6	INTENSITY	—	INTENSITY	SECONDARY GREEN	GROUND		
7	VIDEO	—		SECONDARY BLUE			
8	H.SYNC.						
9	V.SYNC.						

"—" means GROUND or NO—CONNECTION

"Δ" means mode control of vertical height

Normal vertical height at TTL high level or no-connection.

Approx. 20% increased vertical height at TTL low level or grounded.

SIGNAL LEVEL

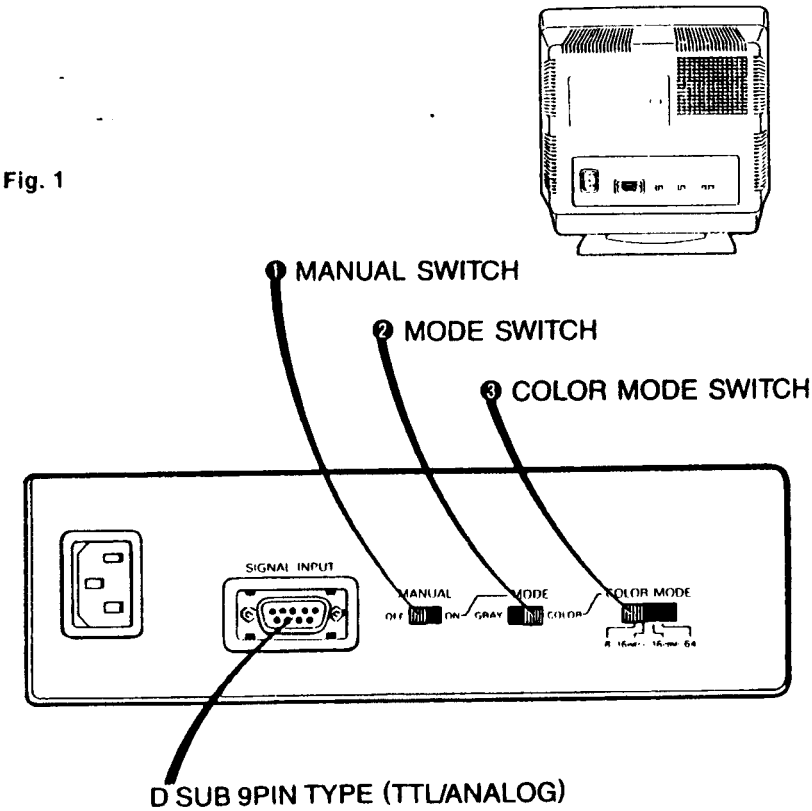
All signal levels, except for those listed below, are TTL

"•" means 0.7Vp-p (VIDEO)

"*" means 0.7Vp-p (VIDEO), 0.3Vp-p (SYNC.)

ADJUSTING THE REAR CONTROLS

Fig. 1



❶ MANUAL SWITCH

This switch selects either the IBM mode when OFF or the manual mode when ON. When this switch is OFF, MultiSync II automatically works in the IBM mode and adjusts itself to the scanning frequency, resolution and color requirements of the IBM compatible graphics adapter being used.
When this switch is ON, the user must manually select the mode (gray/color) and the number of colors (8/16/64) needed by the graphics adapter being used with the MODE SWITCH and COLOR MODE SWITCH. (see No. ❷ ❸ below)

❷ MODE SWITCH

This switch selects either the gray scale or color with a TTL signal input. (See APPENDIX B pin assignment of gray scale.)
Refer to the user manual accompanying the graphics adapter for information on the input signal.

❸ COLOR MODE SWITCH

One of the four color configurations [8/16(NEC)/16(IBM)/64] must be selected when using non-IBM compatible graphics adapters. The proper configuration can be selected by using the COLOR MODE SWITCH as shown below.

COLOR MODE	COLOR MODE SWITCH
8 colors	8
16 colors with low intensity yellow	16 (NEC)
16 colors with IBM brown	16 (IBM)
64 colors	64

Note

This switch should be set correctly in relation to the input signal of the graphics adapter used.
Refer to the user manual accompanying the graphics adapter for information on the input signal.

ADJUSTING THE FRONT CONTROLS

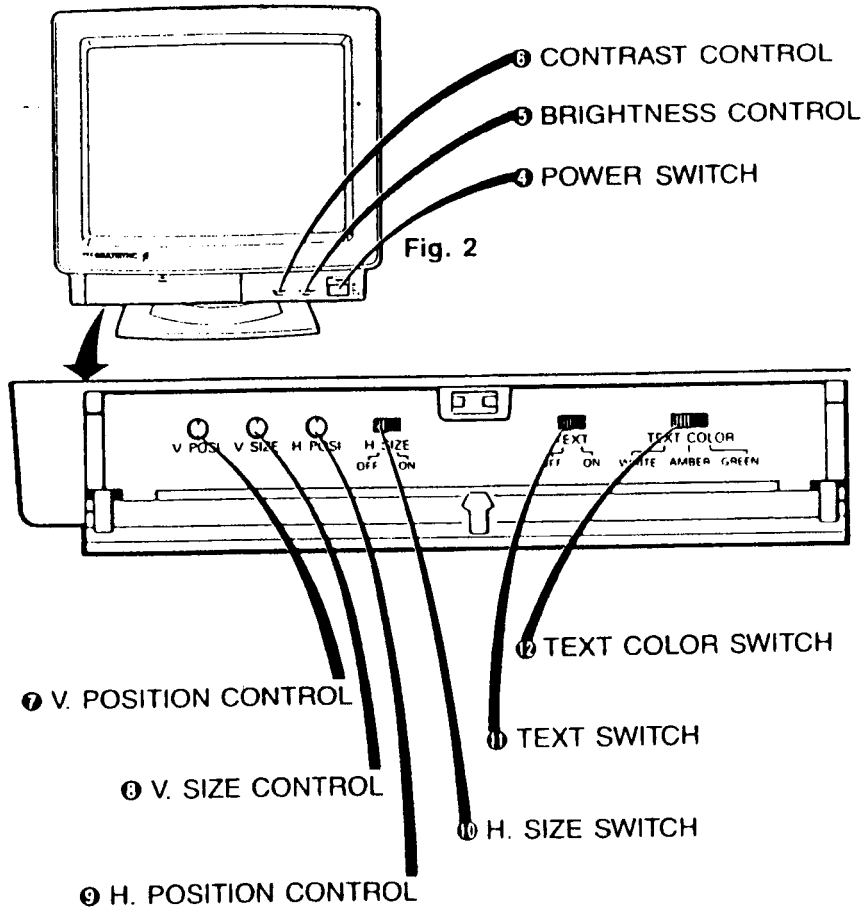


Fig. 2

❹ POWER SWITCH

Used to turn the Power ON or OFF.
When the power is ON, the power LED indicator is lit.

❺ BRIGHTNESS CONTROL

Used to adjust the picture brightness of the screen.

❻ CONTRAST CONTROL

Adjust the display to the contrast preferred by the user.

❼ V. POSITION CONTROL

Adjust this knob for the proper vertical position of the display. Turn the knob clockwise for a higher display position; turn it counterclockwise for a lower display position.

❽ V. SIZE CONTROL

Adjust this knob for the proper vertical size of the display. Turn the knob clockwise for a larger display; turn it counterclockwise for a smaller display.

❾ H. POSITION CONTROL

Adjust this knob for the proper horizontal position of the display. Turn the knob clockwise to reposition display to the right; turn it counterclockwise to reposition to the left.

⑩ H. SIZE SWITCH

Adjust this switch for the horizontal size of display preferred. When this switch is ON, the width of the display can be made wider.

⑪ TEXT SWITCH

This switch controls the text mode of the MultiSync II.
When it is ON, the text will appear in the color displayed by the TEXT COLOR SWITCH (see No.12 below), regardless of the colors of the software program being used.
When it is OFF, the color of the software program being used will be displayed.

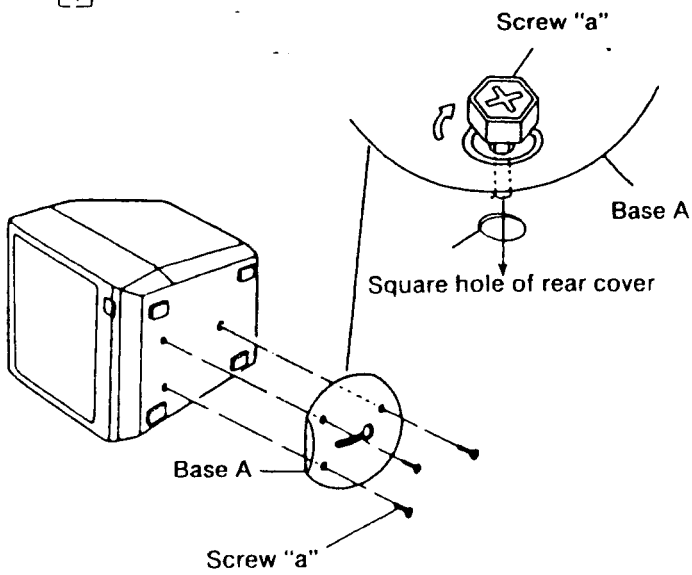
Note
The TEXT SWITCH works only in the TTL mode.

⑫ TEXT COLOR SWITCH

Use this switch to select the text color-green, amber or paper White-when the TEXT SWITCH is ON.
Also use this switch to select the gray scale color-green, amber or paper white-when the gray scale mode is selected (see No.2) regardless of the position of the TEXT SWITCH.

THE METHOD FOR REMOVING AND MOUNTING THE TILT SWIVEL BASE

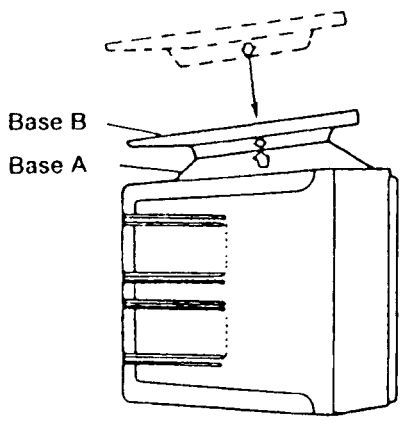
[1]



① Insert 3 mounting screws "a" into holes on the turning table A.

② Arrange the 3 male screws "a" into the female Screws on the bottom of the Set in correct.
Screw the table A to the set driving 3 screws "a" with a philips head screwdriver.

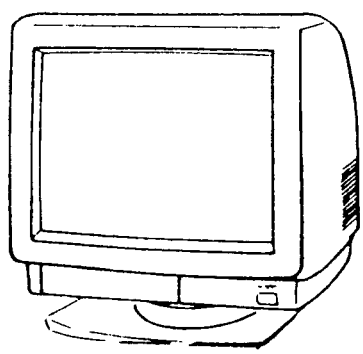
[2]



① Align the arrow of both tables A and B, and put the table B, into the table A as shown on the left.

② Both tables are fixed firmly by turning the table B 180° degrees clockwise.

[3]



After completing the attachment of the turning table in Sequence [1] → [2], place the set in its proper position. It is recommended that the Set should be used with its face coming to the printing side on the turning table.

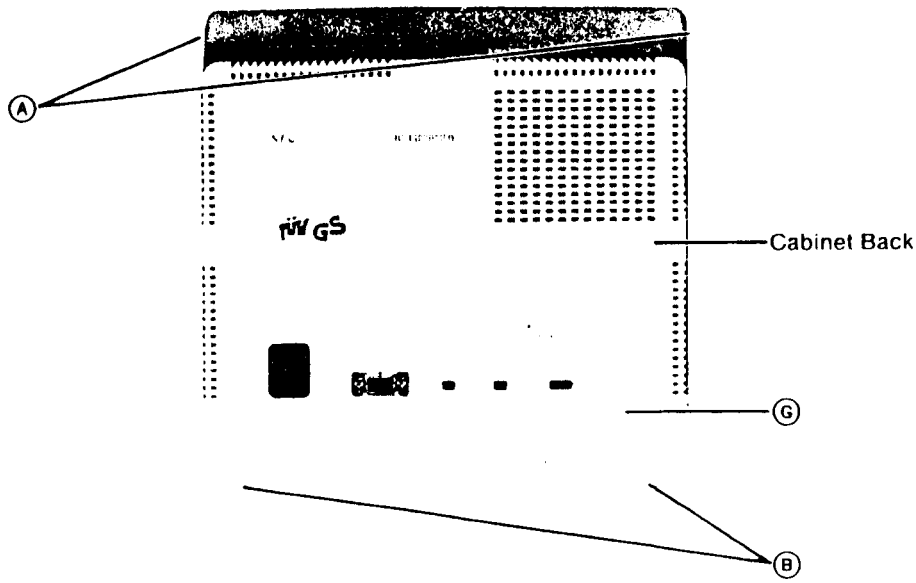
NOTE:
Please avoid a harsh handling to turn the Set vertically or horizontally.

[4] In case you remove the turning table, take a reverse Sequence from [2] → [1].

DISASSEMBLY OF THESE MODELS

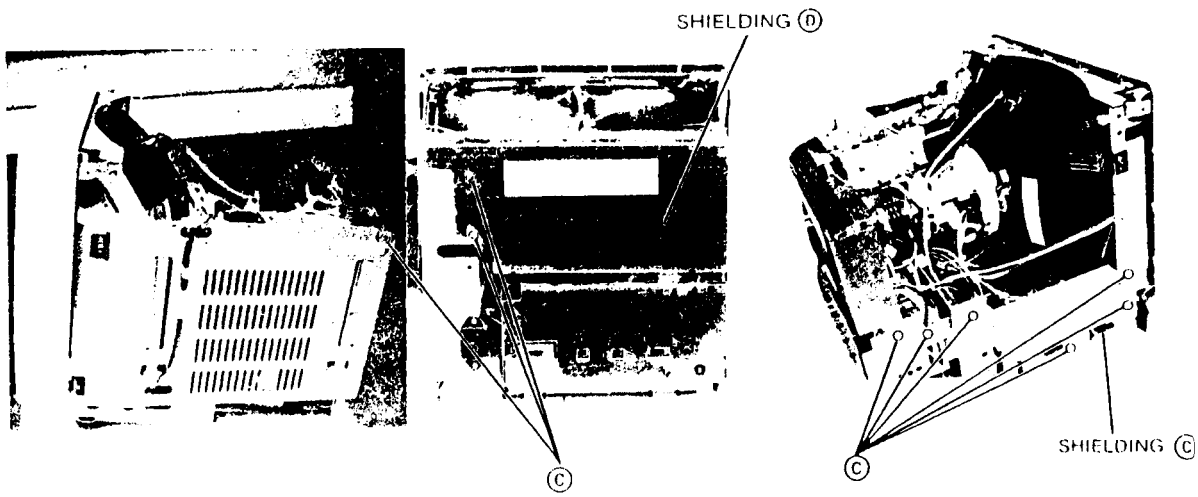
Warning; This equipment generates and used radio frequency energy and if not reconstructed properly, ie., in strict accordance with the following instruction, it may cause interference to radio or television reception.

1. Remove the two screws Ⓐ, the two screws Ⓑ and one screw Ⓖ pull the Cabinet Back bakcward to the rear.



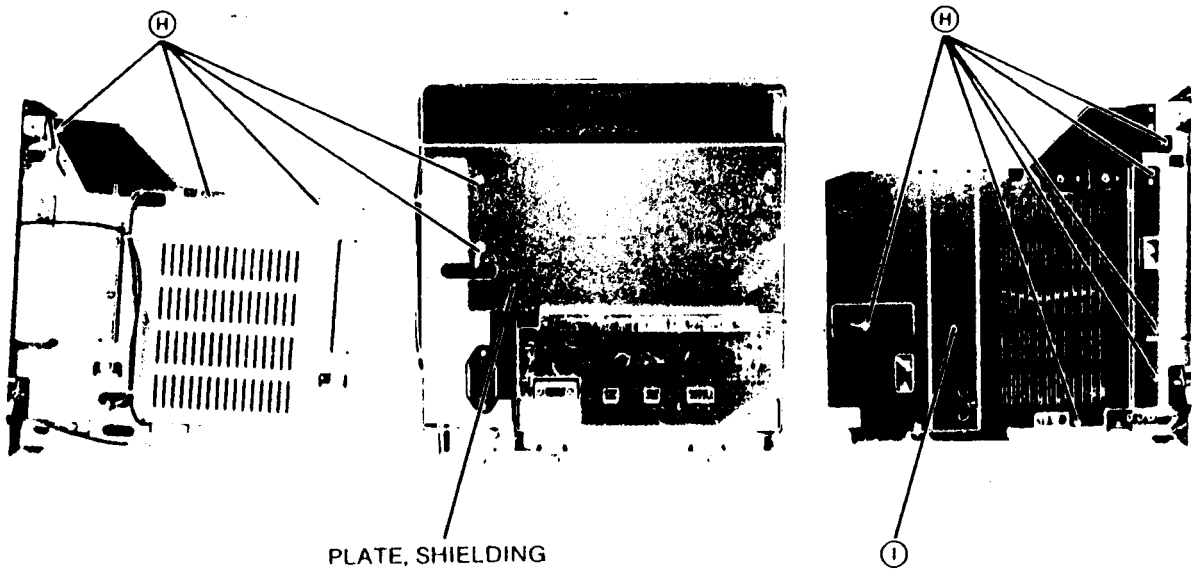
Note: To prevent the occurrence of a gap between the Cabinet Front and the Cabinet Back when attaching the Cabinet Back, be sure to tighten the screws in the order of Ⓐ to Ⓑ.

2. Remove the 9 screws Ⓒ, then take off SHIELDING Ⓒ and Ⓓ.



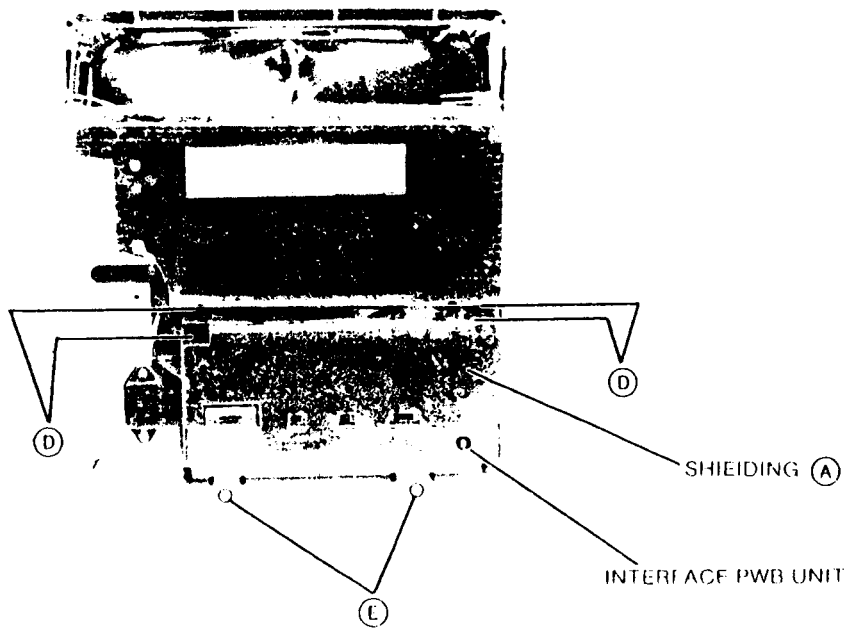
2' As for model JC-1402HMED

Remove the 11 screws Ⓗ1 and one screw Ⓘ, then take off PLATE, SHIELDING.



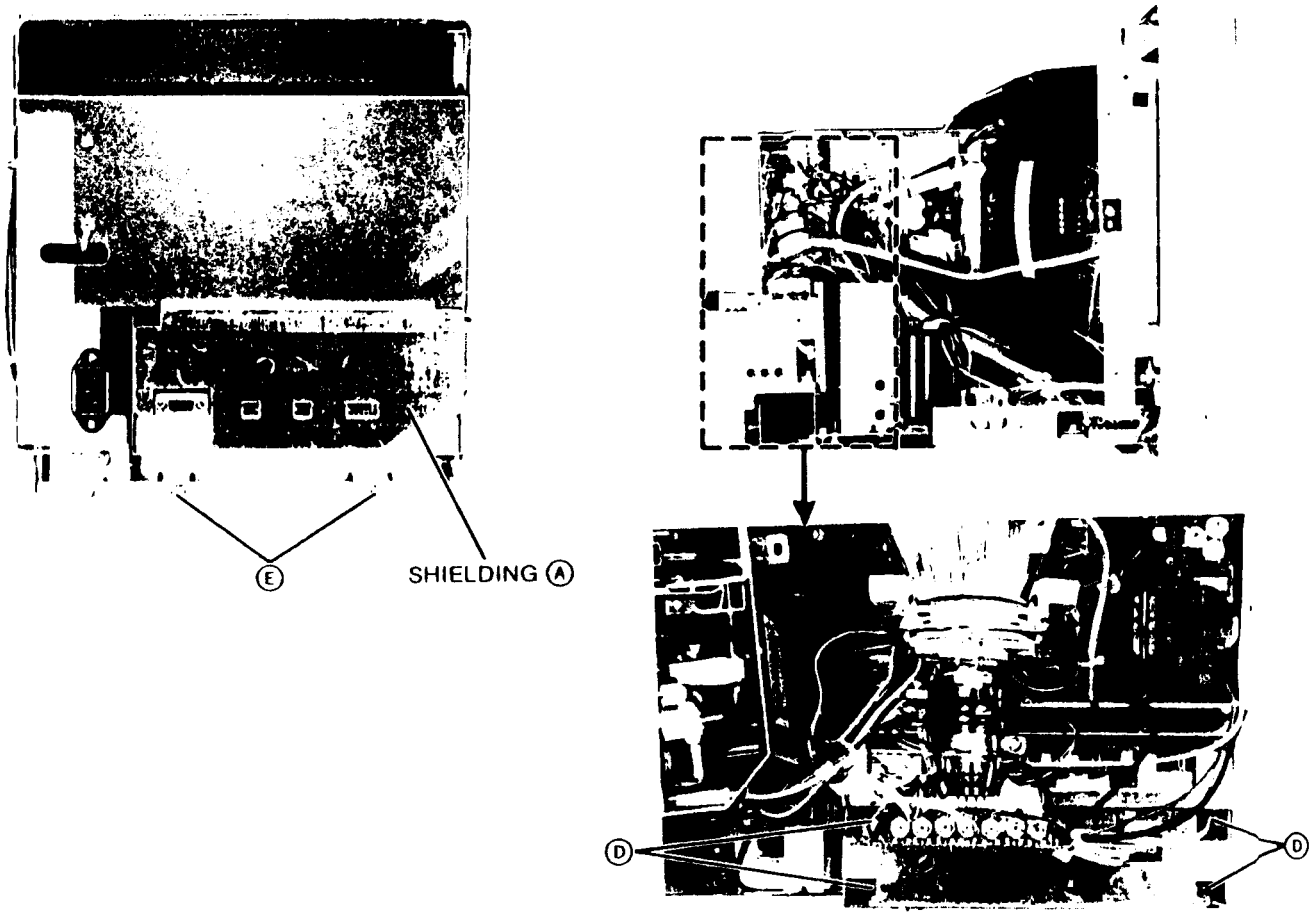
3. INTERFACE PWB UNIT DISASSEMBLY

Remove the 4 screws Ⓓ, then take off the SHIELDING Ⓐ.
Disconnect the connectors from the INTERFACE PWB UNIT.
Remove the 2 screws, Ⓔ then take off the INTERFACE PWB UNIT.



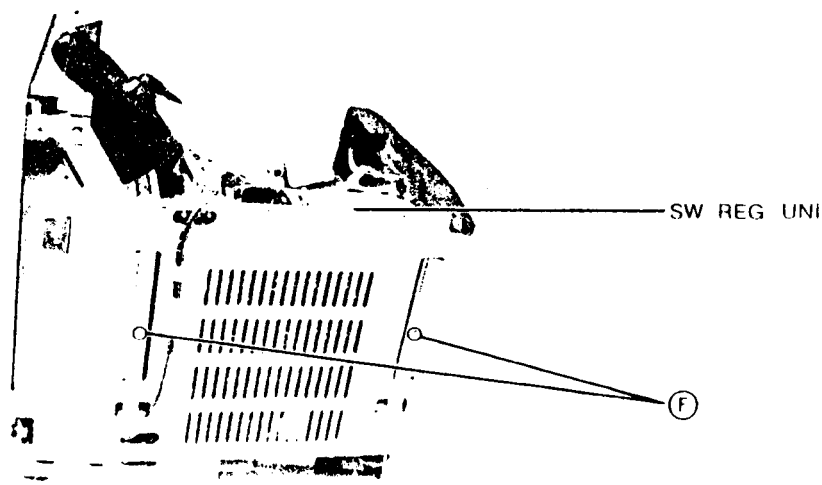
3' As for model JC-1402HMED

Remove PLATE, SHIELDING Ⓐ and then take out the INTERFACE PWB UNIT as the instructions bellow.
Remove the 4 screws Ⓓ, then take off the SHIELDING Ⓐ.
Disconnect the connectors from the INTERFACE PWB UNIT.
Remove the 2 screws, Ⓔ then take off the INTERFACE PWB UNIT.



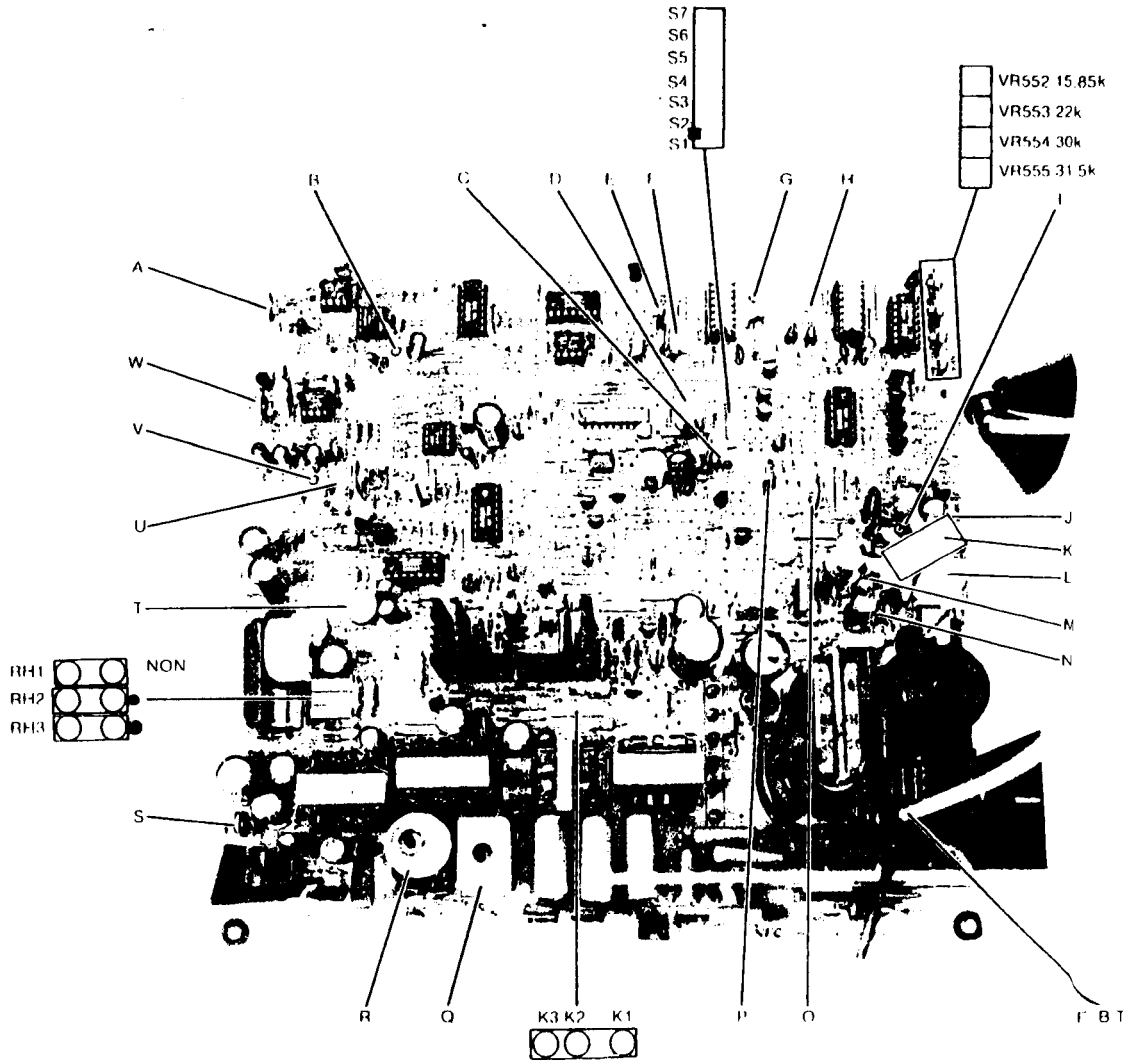
4. SW. REG. UNIT. DISASSEMBLY.

Disconnect the connectors C. K. SW and DEGAUSSING COIL from the SW. REG. UNIT.
Remove the 2 screws Ⓕ, then take off the SW. REG. UNIT.



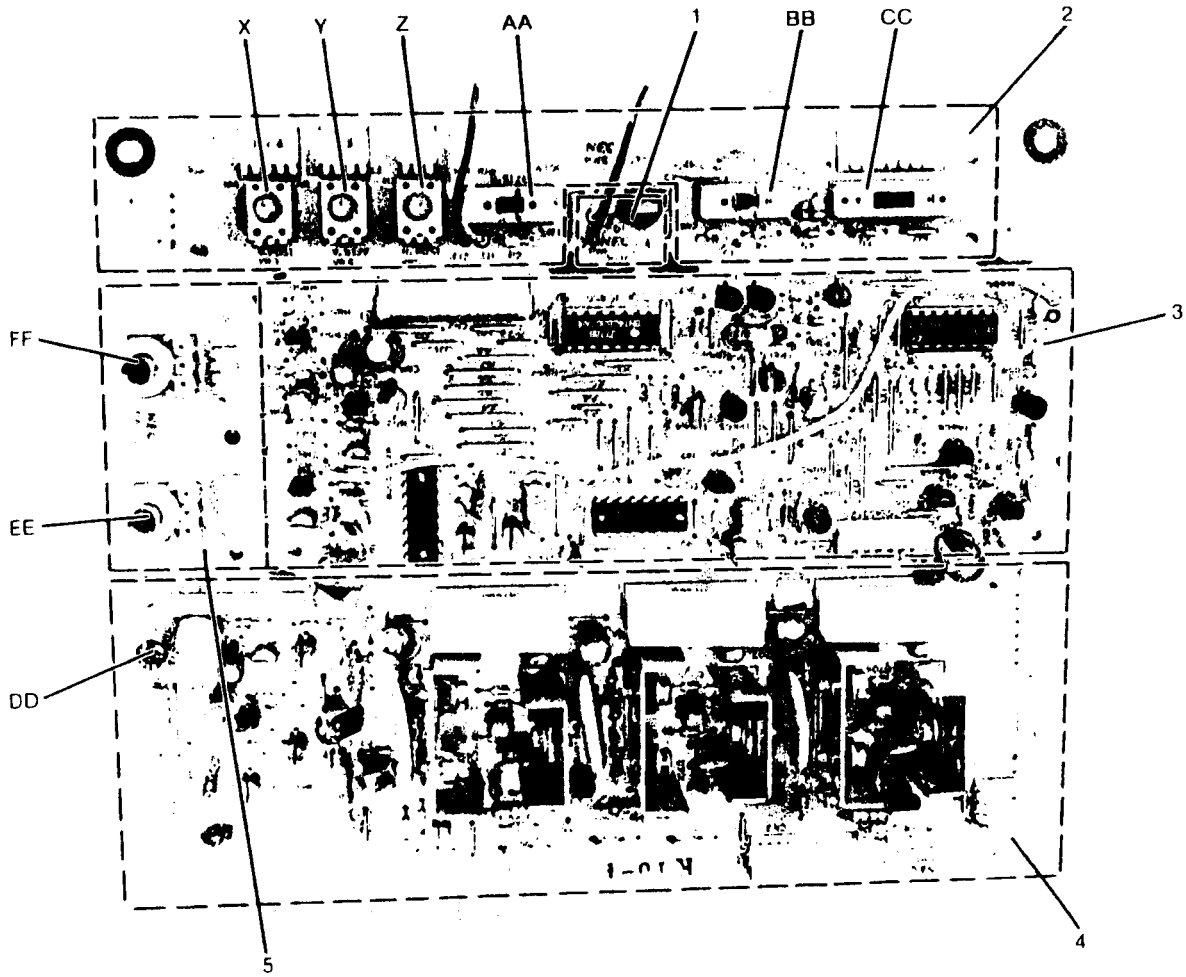
PARTS LOCATION DIAGRAMS

DEF PWB ASSY (PWE—194)



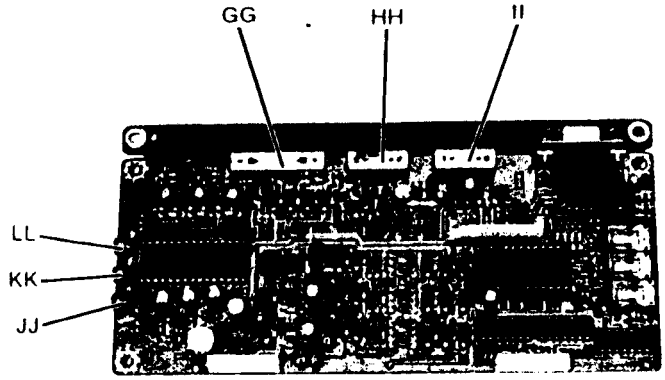
A	VR551 H. F-V ADJ	M	TP2002A
B	TP551 H. F-V	N	TP2001A
C	VR401 V.HOLD	O	VR402 SUB V. HEIGHT
D	TP501 H. HOLD	P	VR405 V. LIN
E	VR502 H. HOLD 2	Q	L506
F	VR501 H. HOLD 1	R	L505 H. WIDTH COIL
G	TP503 (GND)	S	VR5C1 TP502 6V ADJ.
H	TP5E1 (16V)	T	VR403 SIDE PIN
I	TP2001C	U	VR5E1 +16V
J	TP2002C	V	TP451 V.F-V
K	VR2001 VR2002 HV. PROTECTOR	W	VR451 V.F-V ADJ
L	VR2003 HV. ADJ.		

1	LED PWB ASSY	PWE-207E
2	VR PWB ASSY	PWE—207D
3	INTERFACE PWB ASSY	PWE—207B
4	VIDEO PWB ASSY	PWE-207A
5	CONTROL PWB ASSY	PWE—207C



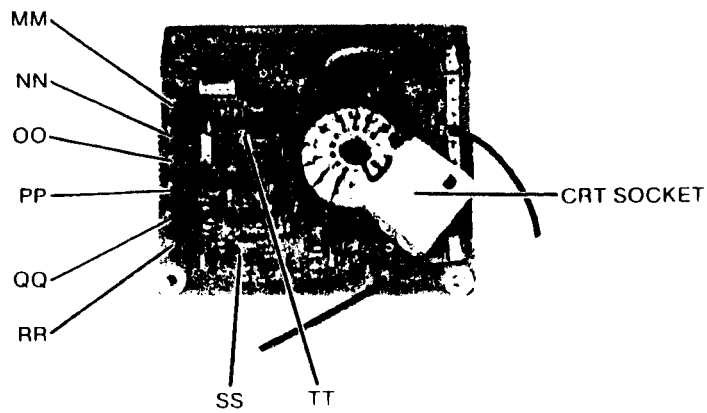
X	VR3 V. POSITION	CC	SW3 TEXT COLOR
Y	VR4 V. SIZE	DD	VR701 SUB. CONT
Z	VR5 H. POSITION	EE	VR2 BRIGHT
AA	SW1 H. SIZE	FF	VR1 CONTRAST
BB	SW2 TEXT		

INPUT PWB ASSY (PWE—206)



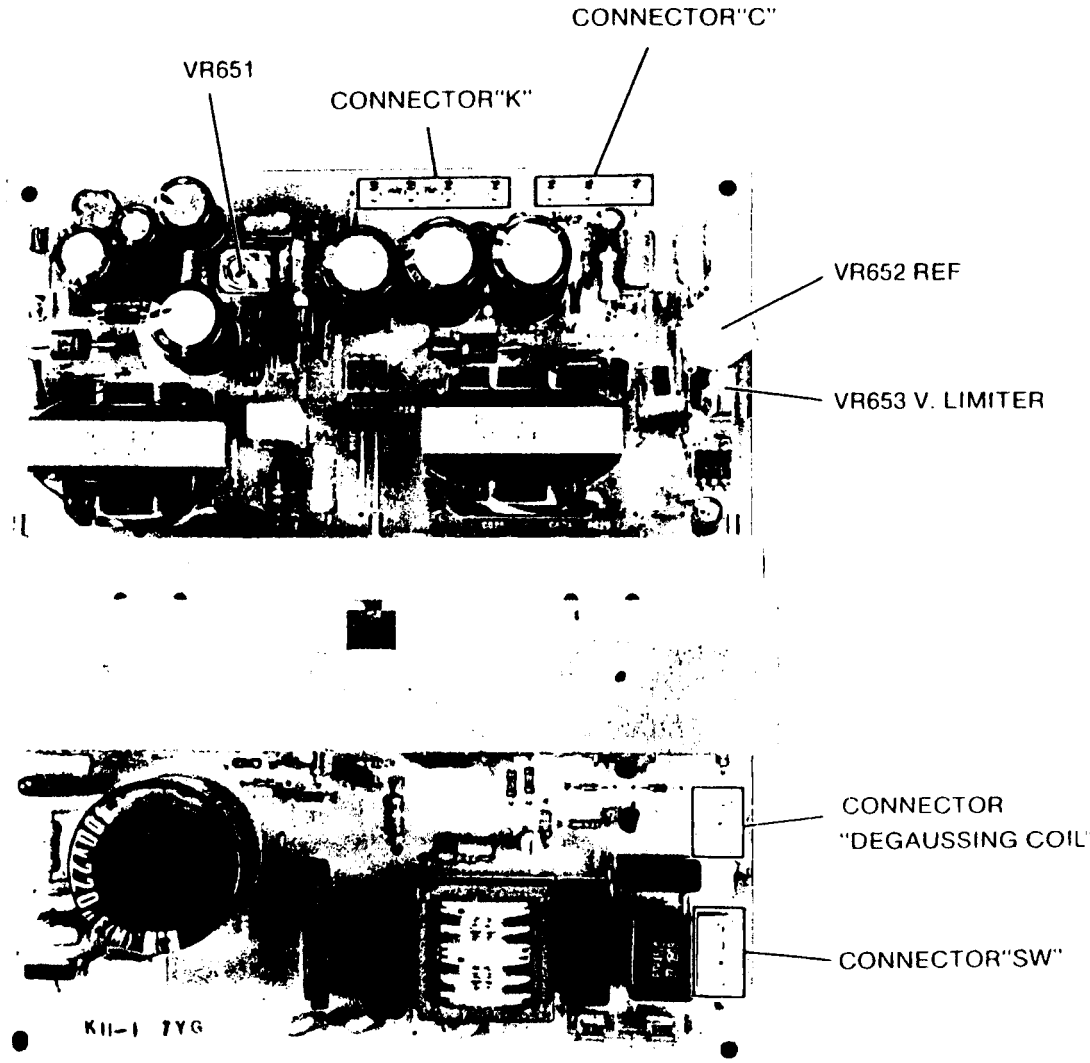
GG	SW803 COLOR MODE	JJ	VR803
HH	SW802 MODE	KK	VR802
II	SW801 MANUAL	LL	VR801

CRT PWB ASSY (PWE-203)



MM	VR904	QQ	VR902
NN	VR905	RR	VR903
OO	VR906	SS	TP901
PP	VR901	TT	TP902

SW. REG. PWB ASSY (PWE-198)



ADJUSTMENT PROCEDURE

Standard Adjustment Conditions

1) Power source voltage: AC220V~240V 50 Hz.
2) Aging: Adjust after leaving power on for 20 minutes or more.
3) Signals:
   Video: Analog 0.6Vp-p 75Ω terminal Positive polarity
   Analog Sync. on green
   Video: 0.6Vp-p
   Synchronizing: 0.3Vp-p
   Synchronizing: TTL level Negative polarity/positive polarity
   Separate/composite
   Deflection frequency: H. 15kHz - 35kHz
   V. 50 Hz - 80 Hz

   Unless otherwise specified, use signal 14 (22kHz EGA mode).

1. SW. REG. UNIT

1) $+B_1$ (VR651) +85V LINE
   Adjust VR651 to be 85 VDC
2) $+B_{LIM}$ (VR653) V.limit (C1-Gnd Voltage)
   Remove C-connector.
   Adjust VR653 to be 122 Volts.

Note: Do not operate the SW. Reg. unit itself without any load.

3) $+B_H$ (VR652) High Voltage control
   This control is permanently sealed at factory.
   Do not attempt to readjust.

2. Pre-adjustment of DEF PWB

Apply 24V DC between K2 and K3.
For sections 3) and 4), the JC-1402HMA INTERFACE PWB ASSY S connector output can also be used as a TESTING EQUIPMENT.

1) +16V adjustment
   Adjust VR5E1 for 16V ±0.05V DC between TP5E1 and the ground.
2) +6V adjustment
   Apply a resistance load of 10Ω10W between HC2 and HC3.
   Adjust VR5C1 for 6 ±0.05V DC between TP502 and the ground.
3) Horizontal F/V convertor adjustment (signal 17)
   Input fH = 25kHz horizontal synchronizing negative polarity 5Vp-p between S7 and the ground.
   Adjust VR551 for 10 ±0.05V DC between TP551 and the ground.

4) Vertical F/V convertor adjustment (signal 17)
Input fv = 60Hz vertical synchronizing positive polarity 12Vp-p between S6 and the ground.
Adjust VR451 for 5.95 ±0.05V DC between TP451 and the ground.

5) High voltage protector setting
High voltage protector 1
With 32.0 ±0.1V DC applied between TP2001A and the ground,adjust VR2001 for 0.3 ±0.05V DC between TP2001C and the ground.
High voltage protector 2
With 31.8 ±0.1V DC applied between TP2002A and the ground, adjust VR2002 for 0.3 ±0.05V DC between TP2002C and the ground.
Due to DHHS,after adjusting VR2001 and VR2002 seal with an adhesive (TSE-385RTV)or cap (74007891).

3. Main Adjustment

Set the external VRs and switches as follows unless otherwise specified.
Front controls (as seen from front)

VR1 CONTRAST:	Max. (fully clockwise)
VR2 BRIGHTNESS:	At point where back luster disappears.
VR3 V.POSITION:	Mechanical center
VR4 V.SIZE:	Center click position
VR5 H.POSITION:	Center click position
SW1 H.SIZE:	Off (small)(left side)
SW2 TEXT:	Off (left side)
SM3 TEXT COLOR:	Paper white (left end)

Rear controls (as seen from rear)

SW801 MANUAL:	Off (left side)
SW802 MODE:	Color (right side)
SW803 COLOR MODE:	8 colors (left end)

3-1) DEF PWB Adjustment

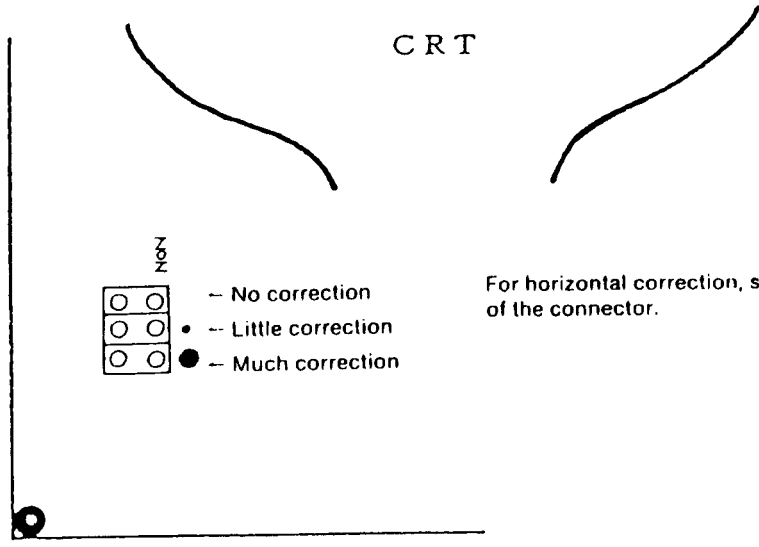
(1) Horizontal Hold
a) Short TP501 and TP503 (GND).
b) Receive signal 16 (fH: 30kHz) and adjust horizontal hold (1) VR501 so that there is one screen.
c) Receive signal 18 (fH: 20kHz) and adjust horizontal hold (2) VR502 so that there is one screen.

(2) Vertical Hold
Receive signal 14 (fv: 60Hz), turn vertical hold VR401 and set to the mechanical center within the indented range.

(3) High Voltage Adjustment
Receive signal 16 (fH: 30.48kHz) and adjust high voltage adjustment VR2003 so that the high voltage is 23.5kV with the the CRT anode current cut off.
Due to DHHS,after adjusting seal with an adhesive (TSE—385RTV) or cap (74007891).

(4) Horizontal Raster Centering Signal 14 (Adjust at VGA H: 31.5kHz/V: 60Hz, 350 line mode)
Check that the horizontal linearity is suitable. If it is extremely bad, adjust to a suitable point with L506.

If the screen is rolling, centering can be adjusted with horizontal position VR5, but after return VR5 to the center click position.
Turn the brightness control fully clockwise so that back raster appears, then reinsert connector RH so that the back luster is in the center of the CRT screen.
Reinsert connector RH where there is no extreme lack of or break in the raster.
Set the luster centering with the manual switch off (to the left as seen from the back) and the horizontal size switch on (widened).



NOTE: Due to overscanning, signals of fH: 18kHz or lower cannot be set.

(5) Horizontal Position (Adjust to the raster center)
Input the signals below and adjust so to the center of the raster. The order is not important.

Signal			VR
CGA fH:	15.85kHz	TTL signal 10	VR552
EGA fH:	22 kHz	TTL signal 14	VR553
PGC fH:	30.48kHz	TTL signal 16	VR554
PS/2 fH:	31.5 kHz	TTL signal 1	VR555

NOTE: The TTL/analog setting should be correct.
The manual switch should be off.

(6) Vertical Linearity
a) Receive signal 12 (fH: 18kHz) and adjust VR402 for the suitable vertical screen size.
b) Adjust VR405 for the optimum vertical linearity.

(7) Vertical Sub Height
Receive EGA signal 14 (fH: 22kHz) and adjust VR402 for a vertical screen size of 180mm.

(8) Side Pin Cushion
djust VR403 for the optimum side pin cushion distortion.

(9) Horizontal Linearity
Adjust L506 for the optimum horizontal linearity.

(10) Horizontal Width
Receive EGA signal 14 (fH: 22kHz) and adjust width coil L505 for a horizontal screen size of 250 ±2mm.
The horizontal size switch should be off.
If correction is not sufficient with L505, turn the L506 linearity coil slightly and adjust within a range so that the linearity does not get worse.

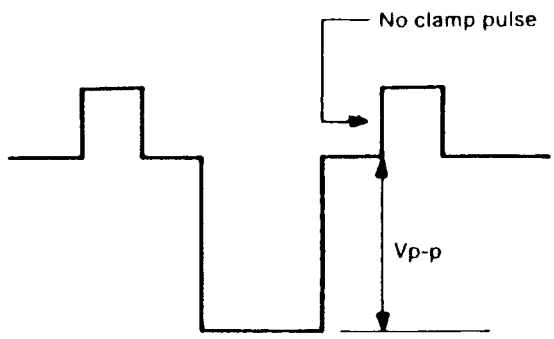
3-2) Adjustment of Video Amplitude and White Balance

NOTE: Check that the video signals are as shown below before performing the main adjustment. In particular, for LVG—1600, the video signal output level varies according to the signal patern, so check the level with the signal to be adjusted.
Video: Analog 0.6Vp-p
Synchronizing: Separate TTL level
Unless otherwise specified, use signal 10 for video adjustments.

(1) Initial Settings of Adjustment VRs

VR801 - 803	GAIN VR	Fully counterclockwise
VR701	SUB CONT VR	Fully clockwise
VR901 - 903	BIAS VR	Fully clockwise
VR904 - 906	SUB BRIGHT VR	Fully clockwise

(2) Video Contrast Adjustment (Signal 11: Window pattern)
a) GAIN VR adjustment
① Receive the window pattern (the video area of 1/3 - 1/2H x 1/2V in which there is no ABL even with contrast at maximum is preferable).
② Contrast control Fully clockwise
Brightness control Fully counterclockwise
③ Adjust VR801, VR802, and VR803 so that the R, G, and B outputs on the VIDEO PWB are 40Vp-p.
After adjusting, check the Vp-ps again and readjust if they do not conform to the settings.



b) SUB-CONT. VR adjustment

① Contrast control — Fully counterclockwise
Brightness cosntrol — Fully clockwise

② Adjust VR701 so that the G output on the video PWB is 10Vp-p.
After adjusting, check that the R and B outputs are 10Vp-p ±0.5Vp-p.
If not, fine-adjust VR701 so that the R, G, and B outputs are within the range of 10Vp-p ±0.5Vp-p.

(3) Cut-off Adjustment (All black signal)
Set the contrast control fully counterclockwise.

a) ① Short TP901 and TP902.
② Short TP401 and TP5E1 (16V) at 12kΩ.
(Be sure to perform step ① before step ②.)
As the screen VR is turned gradually clockwise, a single color will appear as a horizontal line.
Turn the bias VR for that color fully counterclockwise. Turn the screen VR further clockwise, and turn the bias VR for the next color to appear fully counterclockwise. Next turn the screen VR further clockwise and set the screen VR at the point where the third color is just slightly visible. This color is the reference color for the cut-off adjustment.

b) Turn the bias VRs for the colors other than the reference color clockwise for that they are about as bright as the reference color.

c) Undo the shorts between TP401 and TP5EI ② and between TP901 and TP902 ① in that order.

NOTE: Perform the cut-off adjustment in as dark a place as possible to make the white tracking which follows better.

(4) SUB—BRIGHT. VR Adjustment

a) Receive signal 10 (15.75kHz) H gray scale (16 gradations).

b) Contrast control — Fully clockwise
Brightness control — Fully counterclockwise

c) Adjust SUB BRIGHT. VR905 so that the 4/16 gradation is just slightly visible.
Do not touch VR905 after this.

d) Contrast control — Fully counterclockwise
Brightness control — Fully clockwise

e) Receive an all black signal.

f) Turn VR904 and VR906 so that the back raster is white.

Following procedure can be used instead of above. [Regarding quantum 801C]

(4)' Adjustment of sub-brightness VR

Turn the contrast control fully counter clockwise, the brightness control fully clockwise and sub-brightness control VR905 mechanical center.

a) Receive the signal 8 (15.75 kHz) all black signal.

b) Adjust VR904 and VR906 so that the background raster becomes white. If retrace lines appear, readjust the VR905 counter clockwise so that the retrace lines disappear, and readjust white balance.

c) Receive the all white pattern.

(5) Fine Adjustment of White Balance

Color temperature: Center X = 0.310

Y = 0.325

The color should be white with a slightly blue tinge.

a) Receive signal 11 (15.75kHz, pattern window) H gray scale (16 gradtions).
(Window pattern - within a range in which there is no ABL.)

b) Contrast control Fully counterclockwise
Brightness control Fully clockwise
Check that the white balance is proper for all gradations.
If not, fine adjust the sub bright VR, VR904 and VR906 to make it white.

NOTE: Do not move VR905: G. sub bright.

c) Set the contrast control fully clockwise and the brightness control so that there is no back raster.
Check that the white balance is proper for all gradations.
If not, fine adjust the gain VR, VR801 and VR803 to make it white.

NOTE: Do not move VR802: G. gain.

(6) Focus Adjustment
(100% white or 4-dot missing signal)
Contrast control Fully clockwise
Brightness control To sufficient brightness
Turn the focus control and adjust for the optimum focus.

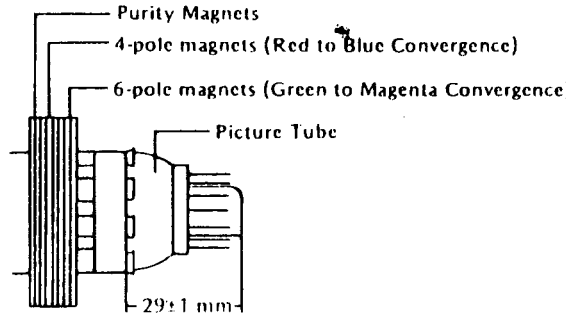
(7) Purity Adjustment

a) Be sure that the display is not being exposed to any external magnetic fields.

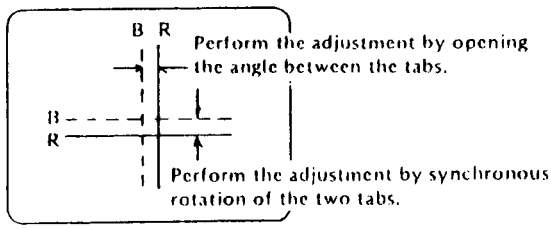
b) Ensure that the spacing between the Purity, Convergence Magnet, (PCM), assembly and the CRT stem is 29 mm ±1 mm. (See below diagram)

c) Produce a complete, red pattern on the display. Adjust the Purity magnet rings on the PCM assembly to obtain a complete field of the color red. This is done by moving the two tabs in such a manner that they advance in an opposite direction but at the same time to obtain the same angle between the two tabs, which should be approximately 180°.

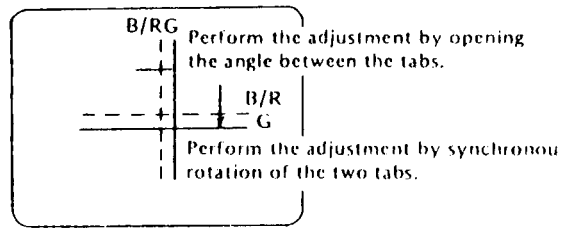
d) Check the complete blue and complete green patterns to observe their respective color purity. Make minor adjustments if needed.



Purity, Convergence Magnet Assembly (PCM)


B R
Perform the adjustment by opening the angle between the tabs.
B
R
Perform the adjustment by synchronous rotation of the two tabs.

Red to Blue Convergence
(Magenta)


B/RG
Perform the adjustment by opening the angle between the tabs.
B/R
G
Perform the adjustment by synchronous rotation of the two tabs.

Green to Magenta Convergence
(White)

(8) Convergence Adjustment

a) Produce a magenta crosshatch on the display.

b) Adjust the focus for the best overall focus on the display.
Also adjust the brightness to the desired condition.

c) Vertical red and blue lines are converged by varying the angle between the two tabs of the 4-pole magnets on the PCM assembly. (See above diagrams)

d) Horizontal red and blue lines are converged by varying the two tabs together, keeping the angle between them constant.

e) Produce a white crosshatch pattern on the display.

f) Vertical green and magenta lines are converged by varying the angle between the two tabs of the 6-pole magnets.

g) Horizontal green and magenta lines are converged by varying the two tabs together, keeping the angle between them constant.

Indication address	Abbreviation	Unit	ROM address	BY LVG-1600								
				01	02	03	04	05	06	07	08	09
0	CLOCK	MHz	X00	28.320F	28.320F	28.320F	28.320F	28.320F	28.320F	28.320F	28.320F	14.160F
1	H FREQ	kHz	X03	31.470F	31.470F	31.470F	31.470F	31.470F	31.470F	31.470F	31.470F	31.470F
2	V FREQ	Hz	X06	50.032F	60.057F	70.089F	50.032F	60.057F	70.089F	50.032F	60.057F	60.057F
3	CHR-SIZE	DOT	X09	09X14	09X14	09X14	09X16	09X16	09X16	09X16	09X16	09X16
4	Nht	CHR	X0B	F100	F100	F100	F100	F100	F100	F100	F100	F050
5	Nhd	CHR	X0D	F080	F080	F080	F080	F080	F080	F080	F080	F042
6	Nhsp	CHR	X0F	F082	F082	F082	F082	F082	F082	F082	F082	F042
7	Vpw-Hpw	V.-RASTER H-CHR	X11	02X12	02X12	02X12	02X12	02X12	02X12	02X12	02X12	02X06
8	Nadj	RASTER	X13	13	07	01	05	13	01	05	13	12
9	Nvt	LINE	X14	F044	F037	F032	F039	F032	F028	F039	F032	F032
10	Nvd	LINE	X16	F025	F025	F025	F025	F025	F025	F030	F030	F031
11	Nvsp	RASTER	X18	F034	F030	F027	F031	F028	F025	F033	F030	F031
12	Nvspdj	RASTER	X1A	01	05	09	06	02	12	14	10	01
13	INT		X1B	00	00	00	00	00	00	00	00	00
14	OUT		X1C	F00011	F00011	F00011	F10011	F10011	F10011	F00011	F00011	F00011

Indication address	Abbreviation	Unit	ROM address	BY LVG-1600								
				10	11	12	13	14	15	16	17	18
0	CLOCK	MHz	X00	14.200F	14.200F	16.255F	16.370F	16.370F	25.110F	25.110F	20.800F	16.640F
1	H FREQ	kHz	X03	15.850F	15.850F	18.432F	22.003F	22.003F	30.473F	30.473F	25.000F	20.000F
2	V FREQ	Hz	X06	60.577F	60.577F	49.817F	59.953F	59.953F	59.987F	59.987F	59.952F	60.060F
3	CHR-SIZE	DOT	X09	08X10	08X10	09X14	08X10	08X10	08X10	08X10	08X10	08X10
4	Nht	CHR	X0B	F112	F112	F098	F093	F093	F103	F103	F104	F104
5	Nhd	CHR	X0D	F080	F020	F080	F080	F080	F080	F080	F080	F080
6	Nhsp	CHR	X0F	F092	F062	F081	F080	F080	F080	F080	F088	F088
7	Vpw-Hpw	V-RASTER H-CHR	X11	01X07	01X07	15X15	13X10	13X10	02X14	02X14	03X08	03X08
8	Nadj	RASTER	X13	00	00	06	06	06	08	08	07	03
9	Nvt	LINE	X14	F026	F026	F026	F036	F036	F050	F050	F041	F033
10	Nvd	LINE	X16	F020	F010	F025	F035	F035	F040	F048	F038	F030
11	Nvsp	RASTER	X18	F023	F018	F025	F035	F035	F044	F048	F038	F030
12	Nvspdj	RASTER	X1A	05	05	00	01	01	01	01	01	01
13	INT		X1B	00	00	00	00	00	00	00	00	00
14	OUT		X1C	F10011	F10011	F00101	F10001	F00001	F11011	F11011	F00001	F00001
		CGA				MDA	EGA		400(L)PGC480(H)		25k	20k

DATA FORMAT FOR USING Quantum 801C

TIMING PARAMETERS:

Real Time Parameters		
Dot Rate	MHz	
Horizontal Rate	KHz	
Vertical Rate	Hz	
Non-Real Time Parameters		
Horizontal		Vertical
Dots/Character		Lines/Character
Total		Total
Characters		Rows
Drive Delay		Drive Delay
Drive Width		Drive Width
		Step Width

Signal No.	Description
1.	H: 31.47KHz V: 50Hz (350 Lines)
2.	H: 31.47KHz V: 60Hz (350 Lines)
3.	H: 31.47KHz V: 70Hz (350 Lines)
4.	H: 31.47KHz V: 50Hz (400 Lines)
5.	H: 31.47KHz V: 60Hz (400 Lines)
6.	H: 31.47KHz V: 70Hz (400 Lines)
7.	H: 31.47KHz V: 50Hz (480 Lines)
8.	H: 31.47KHz V: 60Hz (480 Lines)
9.	H: 31.47KHz V: 60Hz (496 Lines)
10.	H: 15.85KHz
11.	H: 15.85KHz WINDOW PATTERN
12.	H: 18.43KHz
13.	H: 22KHz
14.	H: 22 KHz
15.	H: 30.48KHz (400 Lines)
16.	H: 30.48KHz (480 Lines)
17.	H: 25KHz
18.	H: 20KHz

OPTION PARAMETERS

Signal Gating	
Composit Sync.	OP 1.—0=off 1=on
Vertical Step	OP 2.—0=off 1=on
Horizontal Drive	OP 3.—0=off 1=on
Vertical Drive	OP 4.—0=off 1=on
Signal Polarity	
Composite Sync.	OP 5.—0=non-inverted 1=inverted
Vertical Step	OP 6.—0=non-inverted 1=inverted
Horizontal Drive	OP 7.—0=non-inverted 1=inverted
Vertical Drive	OP 8.—0=non-inverted 1=inverted
Video	OP 13.—0=non-inverted/positive 1=inverted/positive 2=non-inverted/negative 3=inverted/negative
Interlace Mode	OP 9.—0=non-interlace 1=interlaced sync only 3=interlaced sync & video
Video Mode	OP 10.—0=monochrome 1=color
Duty Cycle	OP 11.—0=50% 1=100%(OP 12.0) 0 or 1=100% (OP 12.2)
Character Clocking Mode	OP 12.—0=single-phase 2=dual-phase
Horizonatal Skew	OP14.—skew right 0-3 dots
Vertical Skew	OP 15.—skew down 0-9 lines
Cursor	OP 16.—0:off 1=fast blink 2=slow blink 3=on continuous

	10	11	12	14	15	16	17	18
Real Time Parameters								
Dot Rate(MHz)	14.200	14.200	16.255	16.370	25.110	25.110	20.800	16.640
Horizontal Rate(kHz)	15.850	15.850	18.432	22.003	30.473	30.473	25.000	20.000
Vertical Rate(Hz)	60.580	60.580	49.820	59.950	59.990	59.990	59.950	60.060
Non-Real Time Parameters.								
H: Dots/Character	8	8	9	8	8	8	8	8
Total	112	112	98	93	103	103	104	104
Characters	80	20	80	80	80	80	80	80
Drive Delay	92	62	81	80	80	80	88	88
Drive Width	7	7	15	10	14	14	8	8
V: Lines/Character	10	10	14	10	10	10	10	10
Total	260	260	370	366	508	508	417	333
Rows	20	10	25	35	40	48	38	30
Drive Delay	23	18	25	35	44	48	38	30
Drive Width	1	1	15	13	2	2	3	3
Step Width	—	—	—	—	—	—	—	—
Signal Gating								
Composite Sync.	1							
Vertical Step	0							
Horizontal Drive	1							
Vertical Drive	1							
Signal Polarity								
Compolsite Sync.	1							
Vertical Step	—	—	—	—	—	—	—	—
Horizontal Drive	0 P	0 P	0 P	0 P	1 N	1 N	1 N	1 N
Vertical Drive	0 P	0 P	1 N	1 N	1 N	1 N	1 N	1 N
Video	0							
Interlace Mode	0							
Video Mode	1							
Duty Cycle	0							
Character Clocking Mode	0							
Horizontal Skew	—	—	—	—	—	—	—	—
Vertical Skew	—	—	—	—	—	—	—	—
Cursor	—	—	—	—	—	—	—	—

	10	11	12	14	15	16	17	18
Real Time Parameters								
Dot Rate(MHz)	14.200	14.200	16.255	16.370	25.110	25.110	20.800	16.640
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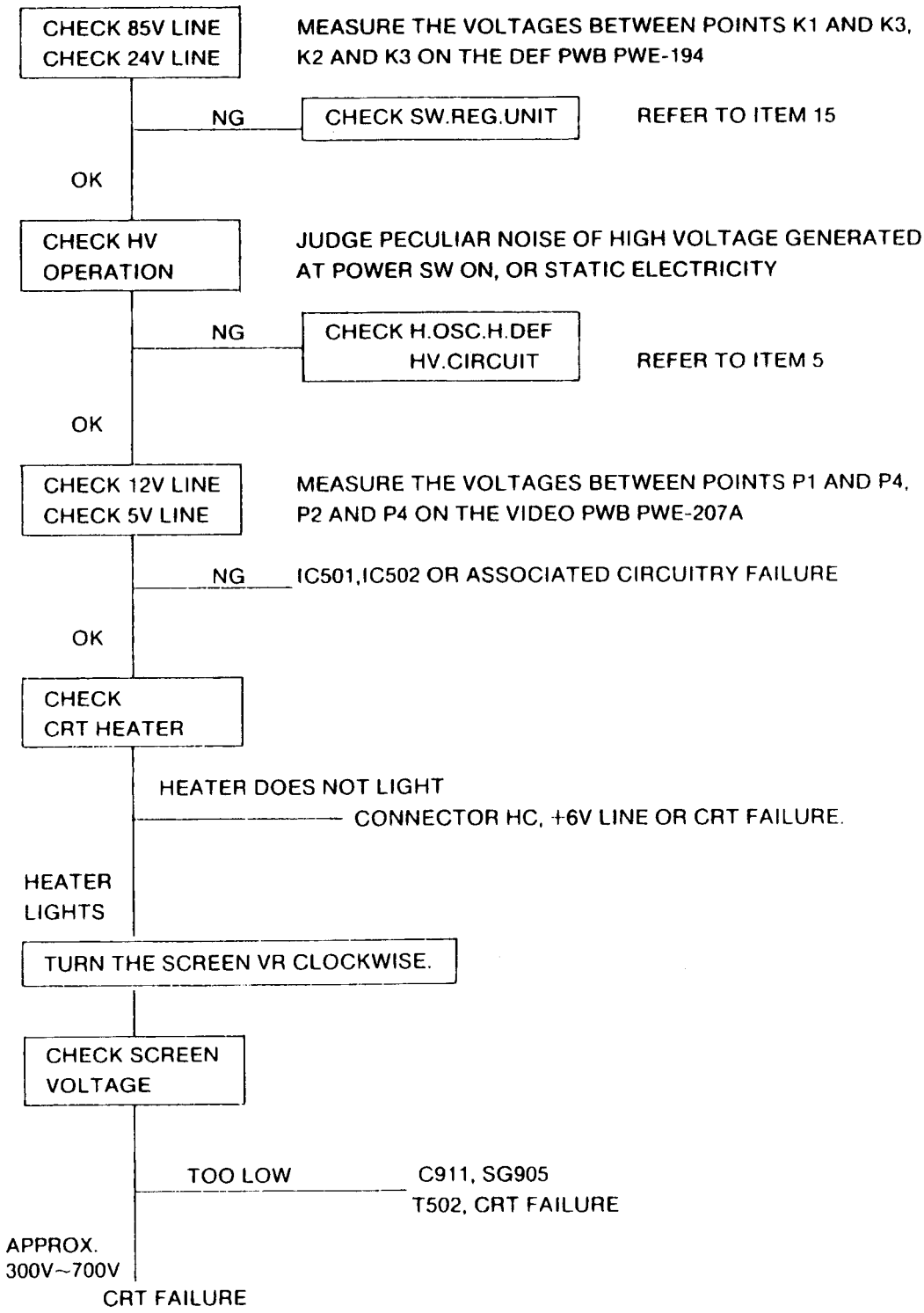
Non-Real Time Parameters.								
H: Dots/Character	8	8	8	8	8	8	8	8
Total	112	112	98	93	103	103	104	104
Characters	80	20	80	80	80	80	80	80
Drive Delay	92	92	81	80	80	80	88	88
Drive Width	7	7	15	10	14	14	8	8
V: Lines/Character	10	10	14	10	10	10	10	10
Total	260	260	370	366	508	508	417	333
Rows	20	10	25	35	40	48	38	30
Drive Delay	23	18	25	35	44	48	38	30
Drive Width	1	1	15	13	2	2	3	3
Step Width	—	—	—	—	—	—	—	—
Signal Gating								
Composite Sync.	1	1	1	1	1	1	1	1
Vertical Step	0	0	0	0	0	0	0	0
Horizontal Drive	1	1	1	1	1	1	1	1
Vertical Drive	1	1	1	1	1	1	1	1
Signal Polarity								
Compolsite Sync.	1	1	1	1	1	1	1	1
Vertical Step	—	—	—	—	—	—	—	—
Horizontal Drive	0 P	0 P	0 P	0 P	1 N	1 N	1 N	1 N
Vertical Drive	0 P	0 P	1 N	1 N	1 N	1 N	1 N	1 N
Video	0	0	0	0	0	0	0	0
Interlace Mode	0	0	0	0	0	0	0	0
Video Mode	1	1	1	1	1	1	1	1
Duty Cycle	0	0	0	0	0	0	0	0
Character Clocking Mode	0	0	0	0	0	0	0	0
Horizontal Skew	—	—	—	—	—	—	—	—
Vertical Skew	—	—	—	—	—	—	—	—
Cursor	—	—	—	—	—	—	—	—

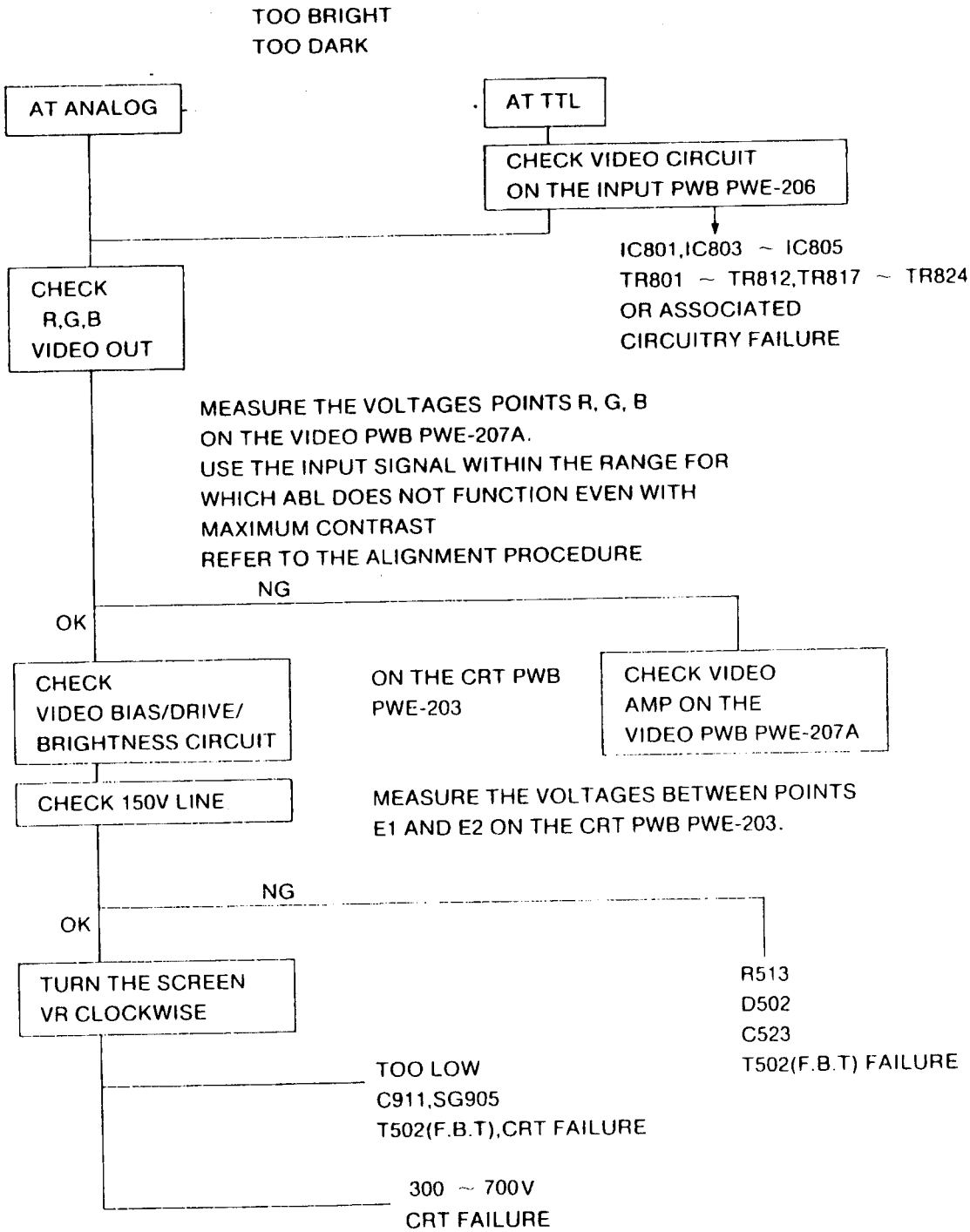
TROUBLE SHOOTING

BEFORE USING THIS CHART, PLEASE REFER TO THE TROUBLE SHOOTING THE USER'S MANUAL.

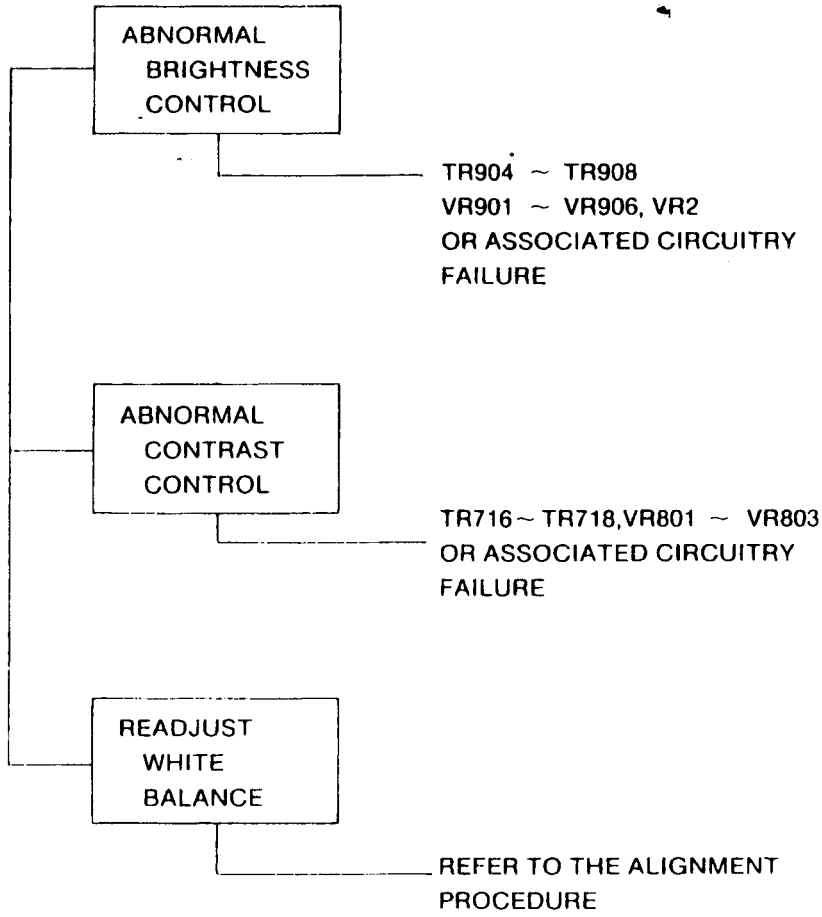
1. NO RASTER


CHECK 85V LINE
CHECK 24V LINE
MEASURE THE VOLTAGES BETWEEN POINTS K1 AND K3, K2 AND K3 ON THE DEF PWB PWE-194
NG
CHECK SW.REG.UNIT
REFER TO ITEM 15
OK
CHECK HV OPERATION
JUDGE PECULIAR NOISE OF HIGH VOLTAGE GENERATED AT POWER SW ON, OR STATIC ELECTRICITY
NG
CHECK H.OSC.H.DEF HV.CIRCUIT
REFER TO ITEM 5
OK
CHECK 12V LINE
CHECK 5V LINE
MEASURE THE VOLTAGES BETWEEN POINTS P1 AND P4, P2 AND P4 ON THE VIDEO PWB PWE-207A
NG
IC501,IC502 OR ASSOCIATED CIRCUITRY FAILURE
OK
CHECK CRT HEATER
HEATER DOES NOT LIGHT
CONNECTOR HC, +6V LINE OR CRT FAILURE.
HEATER LIGHTS
TURN THE SCREEN VR CLOCKWISE.
CHECK SCREEN VOLTAGE
TOO LOW
C911, SG905 T502, CRT FAILURE
APPROX. 300V~700V
CRT FAILURE

2. ABNORMAL VIDEO ON CRT SCREEN

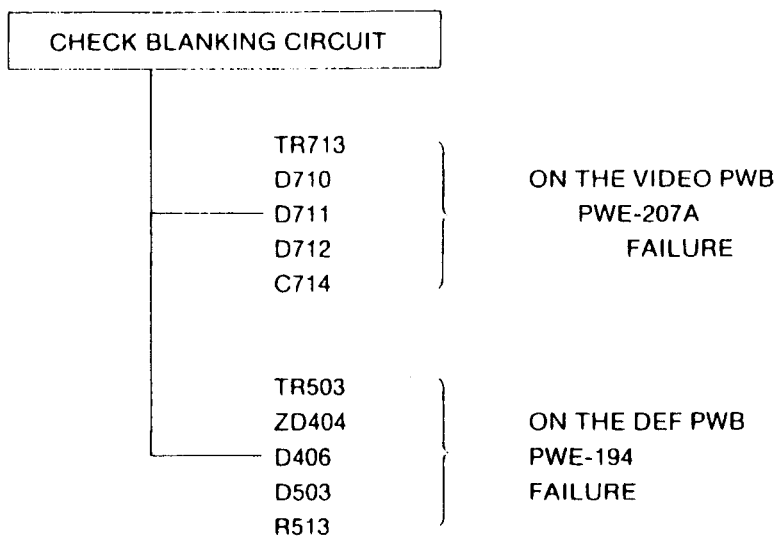


3. ABNORMAL WHITE BALANCE AND TRACKING



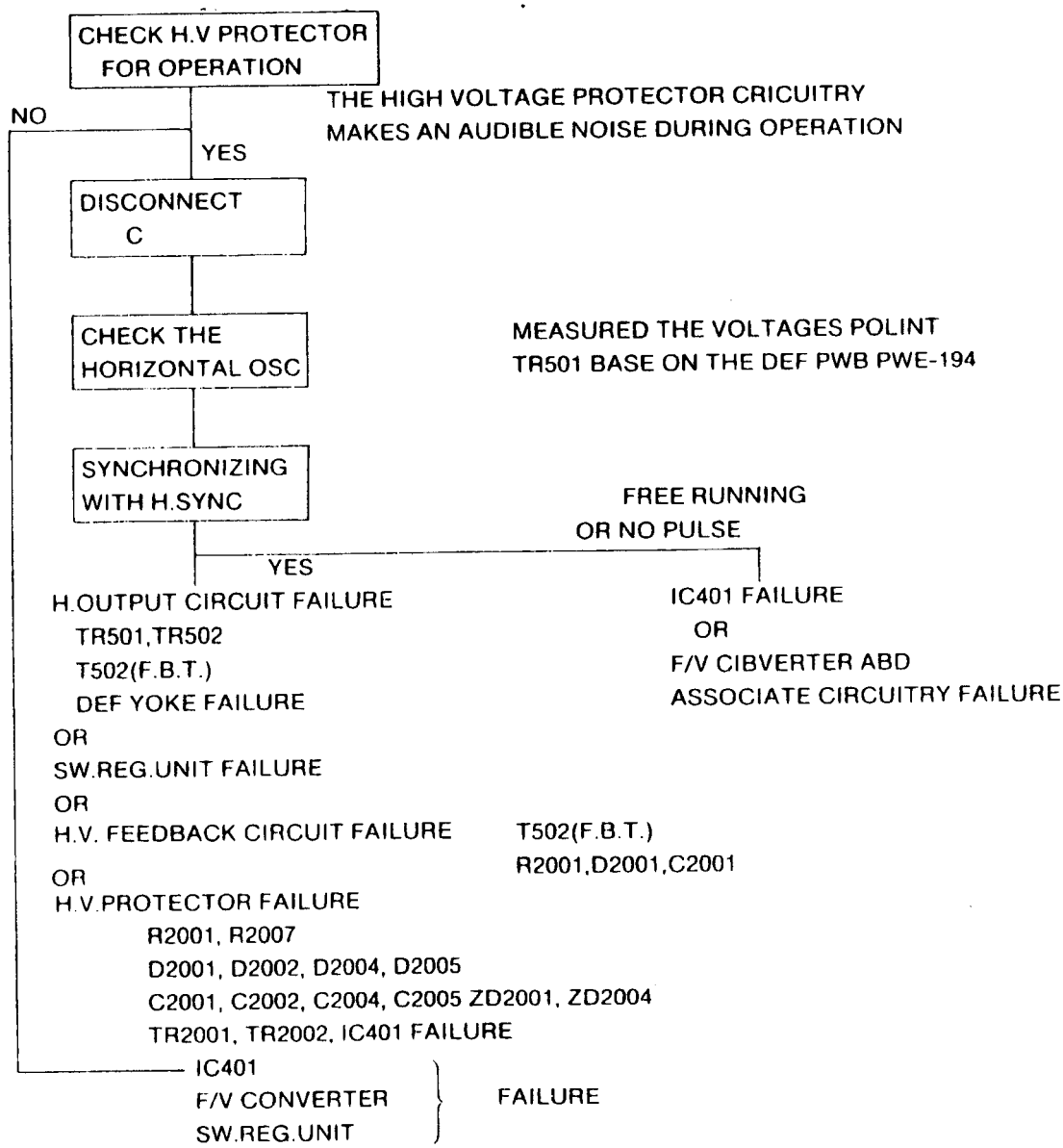
4. NO BLANKING WORKS

VISIBLE RETRACE LINE ON THE BACK RASTER



5. H.OSC/DEF/HV.CIRCUIT FAULT

NO RASTER
ABNORMAL PICTURE SIZE
ABNORMAL VIDEO ON THE CRT SCREEN



6.A H-F/V CONVERTER AND ASSOCIATED CIRCUITRY

CHECK H.SYNC
ON THE DEF PWB
PWE-194
POINT S7

NG → CHECK SYNC. CIRCUIT ON THE INTERFACE PWB PWE-207B

OK

CHECK TP5E1 AND TP551 VOLTAGE

MEASURE THE VOLTAGES
ON THE DEF PWB PWE-194.
SIGNAL CONDITION: SEE ALIGNMENT PROCEDURE

TP5E1=16V
TP551=10V AT 25kHz HORIZONTAL FREQUENCY

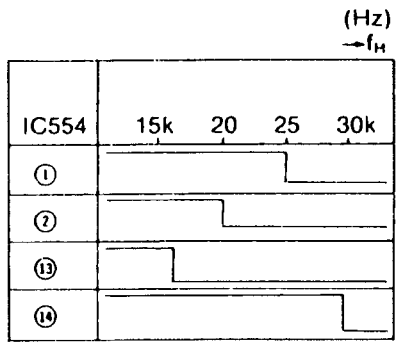
NG → READJUST

OK

OK ← NG → IC551
IC552 FAILURE

CHECK THE IC554 OUTPUT

MEASURE THE VOLTAGES ON THE DEF PWB PWE-194



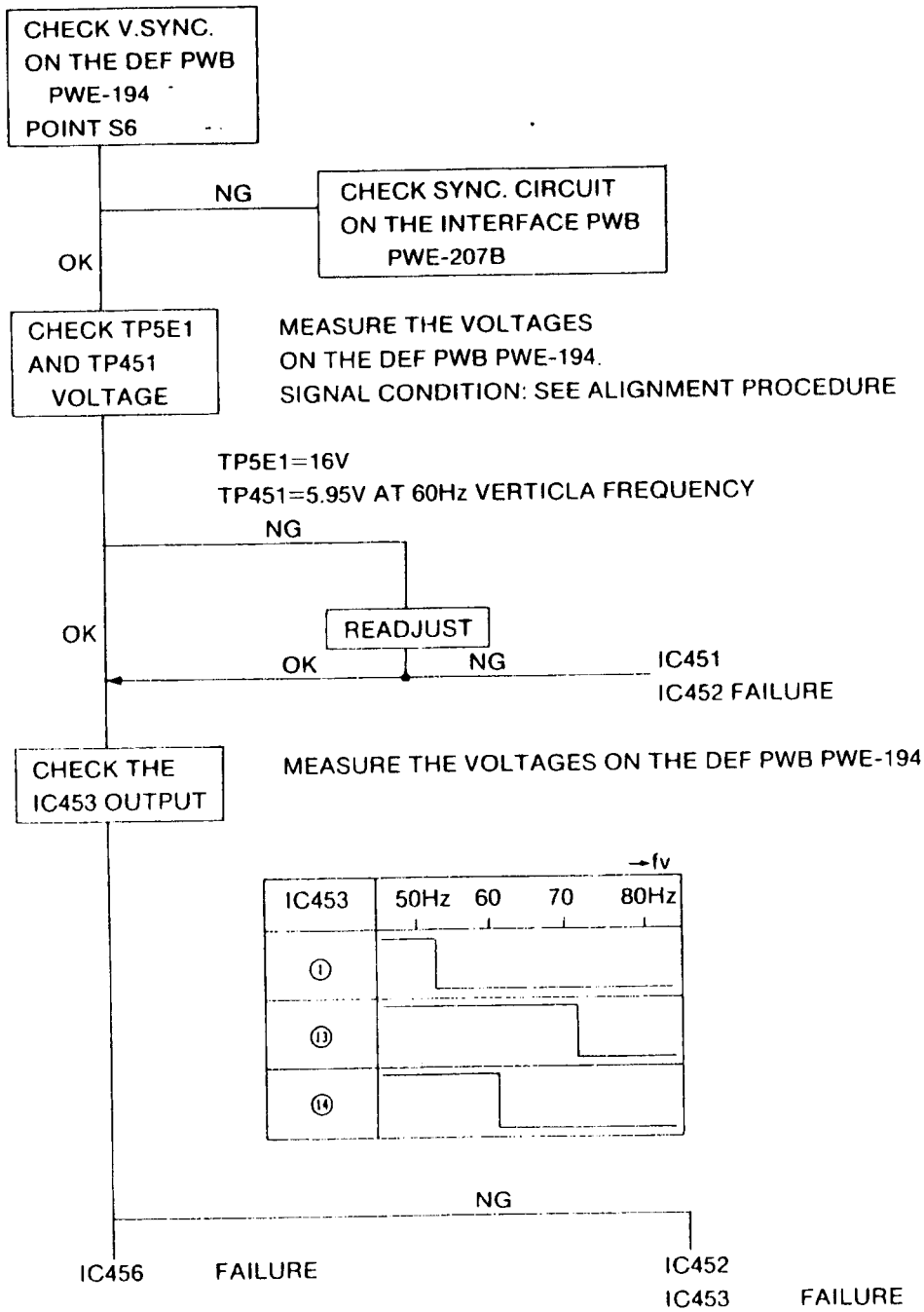
IC554	15.85 kHz CGA	22 kHz EGA	30.48 kHz PGC	31.5 kHz VGA
①	H	H	L	L
②	H	L	L	L
⑬	H	L	L	L
⑭	H	H	L	L

NG

IC557
IC555 FAILURE

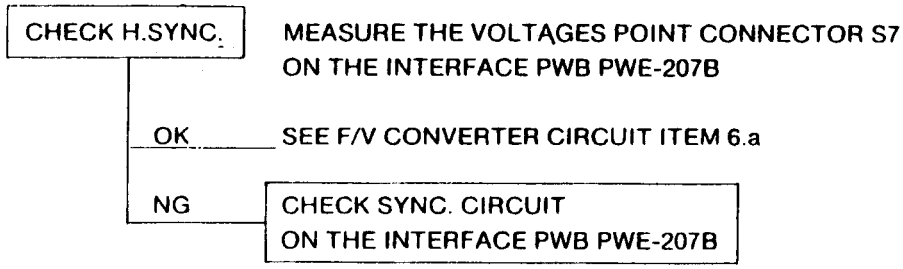
IC554 FAILURE

6.8 V-F/V CONVERTER AND ASSOCIATED CIRCUITRY

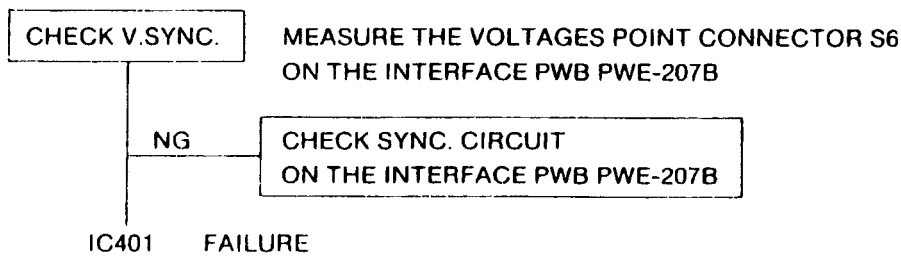


7. LACK OF STABLE SYNCHRONIZATION

• HORIZONTAL

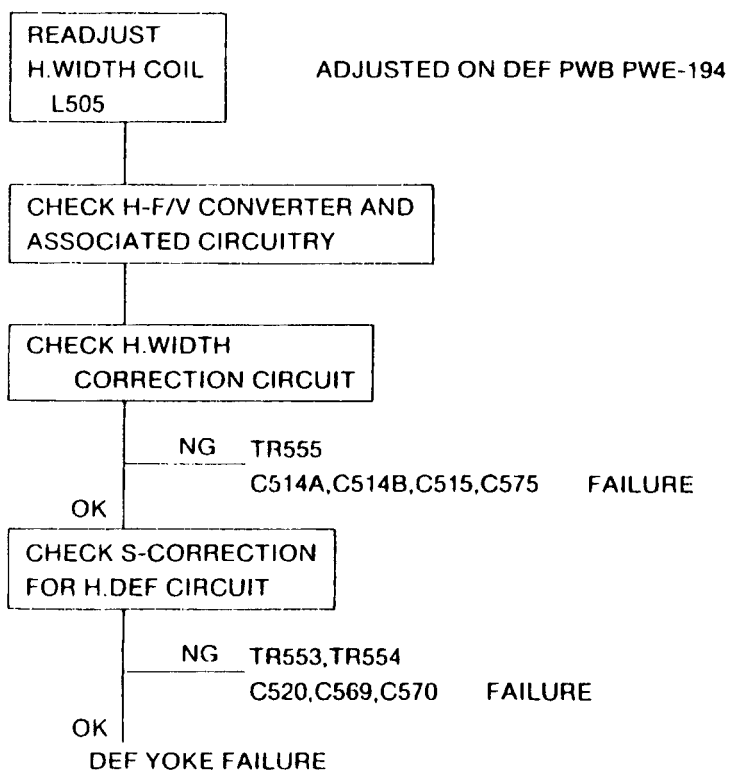


• VERTICAL



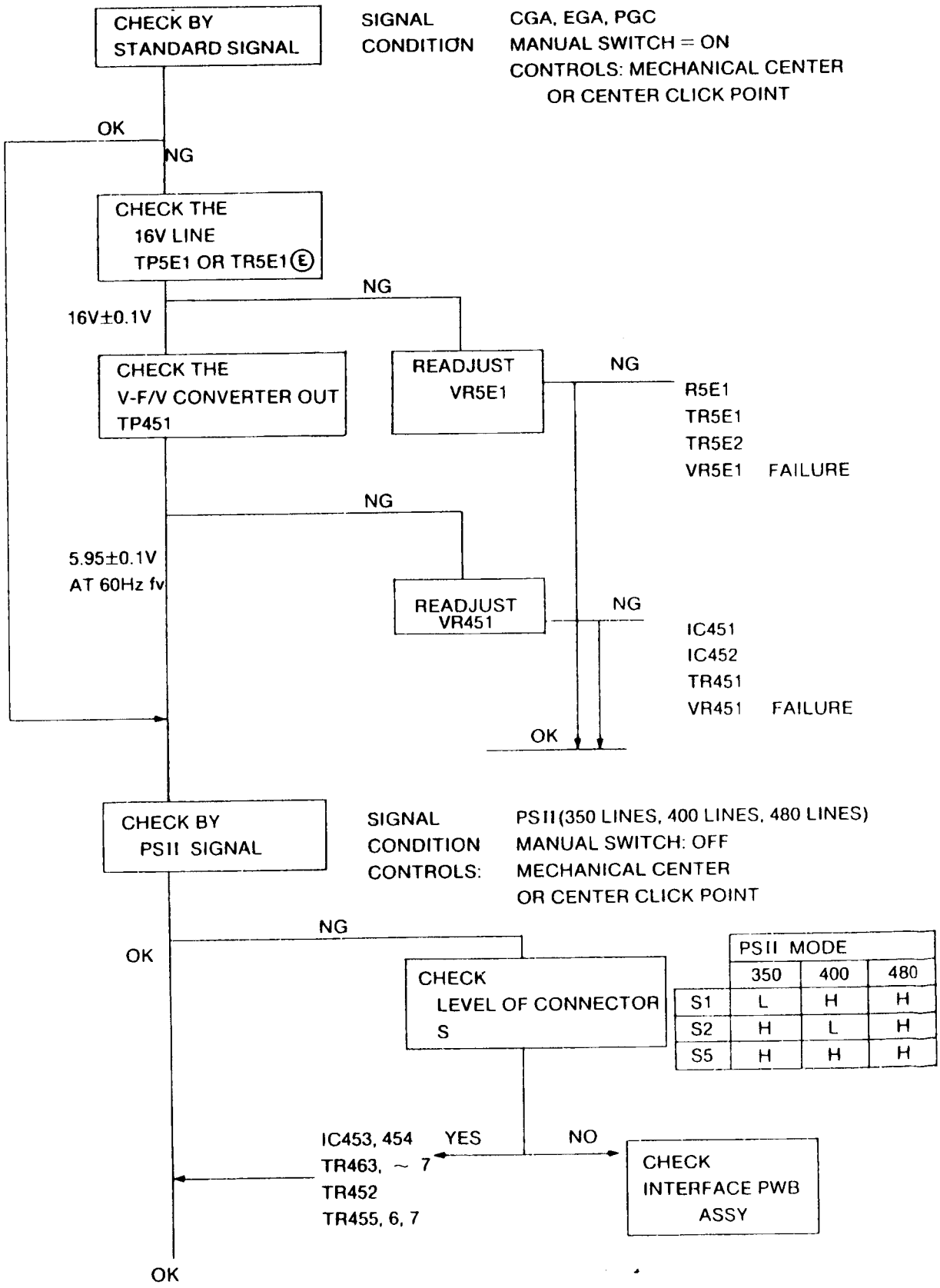
8. PICTURE SIZE

ABNORMAL HORIZONTAL WIDTH



ABNORMAL VERTICAL HEIGHT

TOO LARGE OR SMALL PICTURE SIZE



2. PARTICULAR CASE

1)	NO CHANGE WITH V.SIZE CONTROL	LOOSE CONNECTOR L
2)	UNDERSCANNING OF RASTER WITH CGA	TR453, TR459 IC551 IC552 IC554 16V LINE CIRCUIT FAILURE
3)	SMALL AT PGC 400 LINES MODE	TR454 TR462 FAILURE

9. CENTERING

9.1. HORIZONTAL

a) BACK RASTER CENTERING

CHECK BACK RASTER CENTERING CIRCUIT

- T503
- D5C1
- D5C2
- C5C4
- CONNECTOR RH FAILURE

b) PICTURE CENTERING

READJUST SUB H CENTERING

- SEE ALIGNMENT PROCEDURE

CHECK H-F/V CONVERTOR AND ASSOCIATED CIRCUITRY

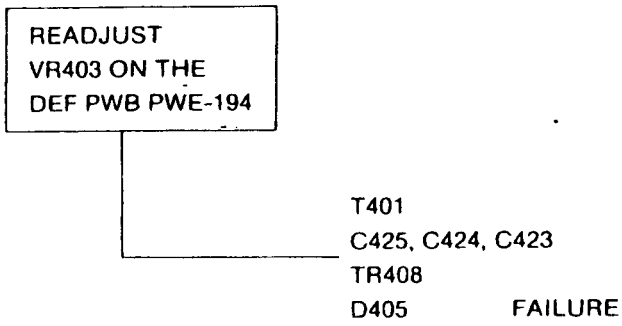
- REFER TO ITEM 6
- IC401
- CONNECTOR H FAILURE

9.2. VERTICAL

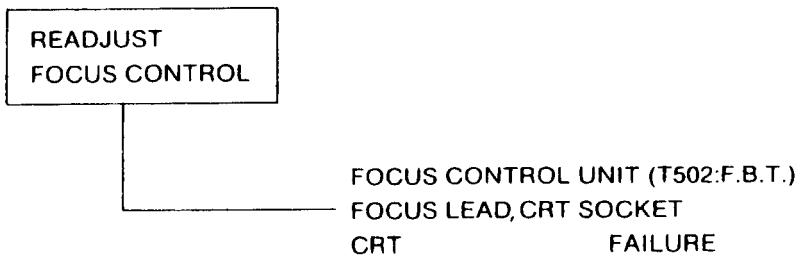
CHECK VERTICAL CENTERING CIRCUIT

- TR403
- TR404
- D402
- D403
- D404
- CONNECTOR M FAILURE

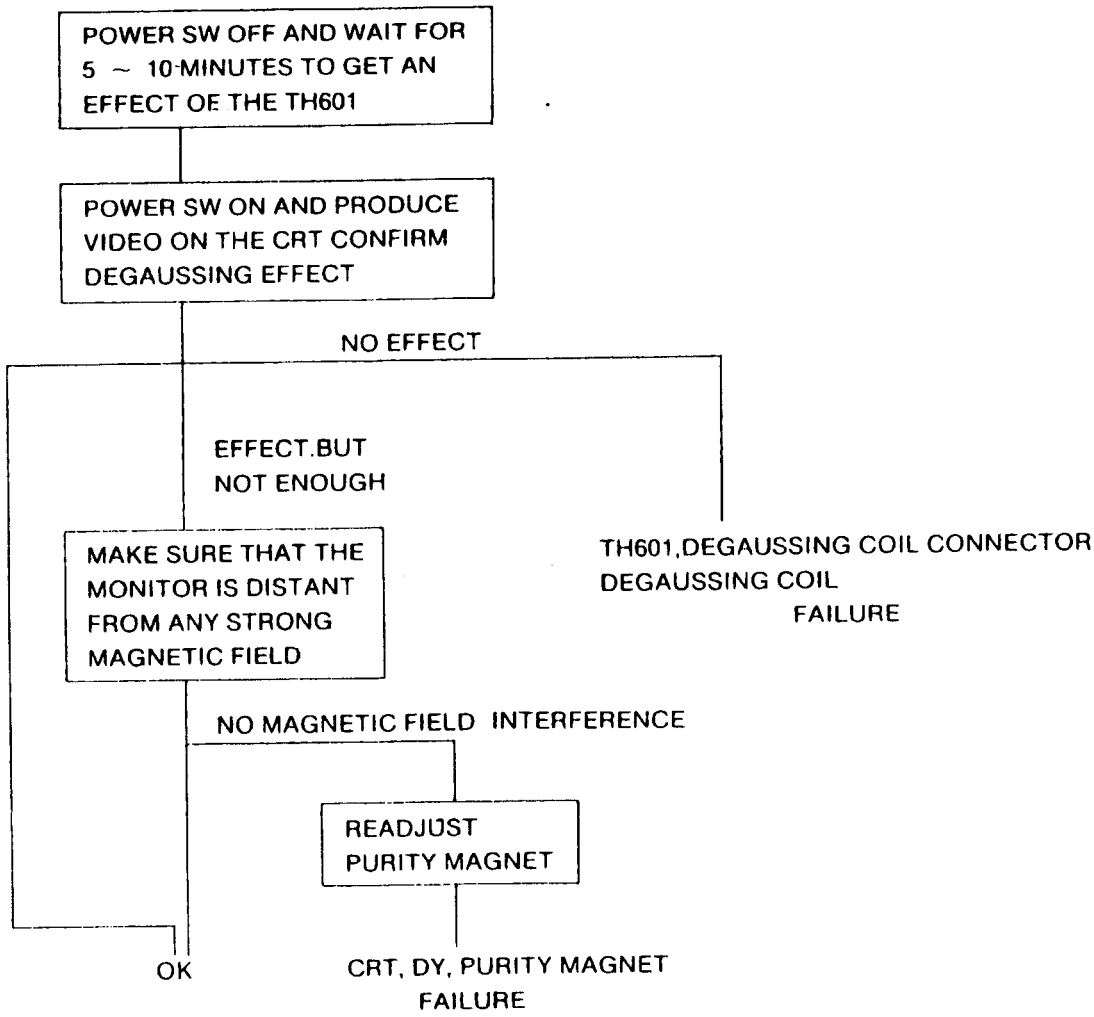
10. SIDE PINCUSHION DISTORTION FAILURE



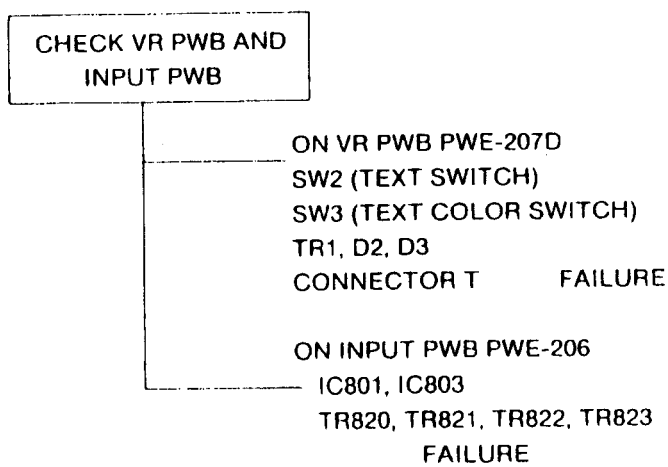
11. POOR FOCUS



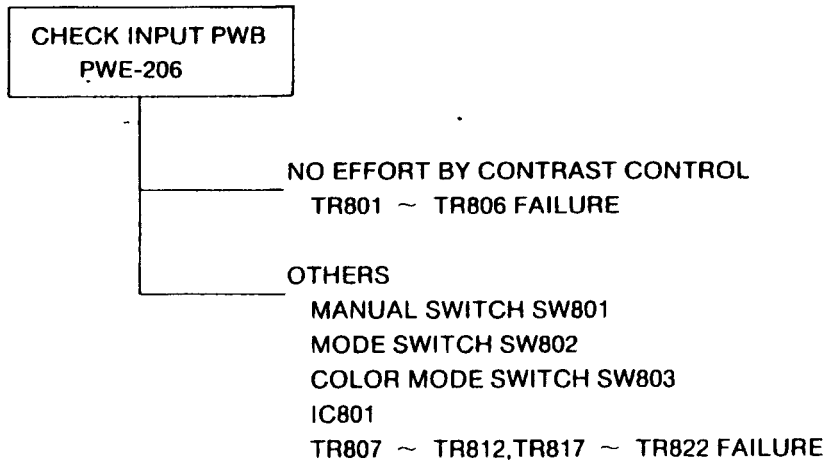
12. IMPURITY ON CRT SCREEN


POWER SW OFF AND WAIT FOR 5 ~ 10 MINUTES TO GET AN EFFECT OF THE TH601
POWER SW ON AND PRODUCE VIDEO ON THE CRT CONFIRM DEGAUSSING EFFECT
NO EFFECT
EFFECT.BUT NOT ENOUGH
MAKE SURE THAT THE MONITOR IS DISTANT FROM ANY STRONG MAGNETIC FIELD
TH601,DEGAUSSING COIL CONNECTOR
DEGAUSSING COIL
FAILURE
NO MAGNETIC FIELD INTERFERENCE
READJUST PURITY MAGNET
OK
CRT, DY, PURITY MAGNET
FAILURE

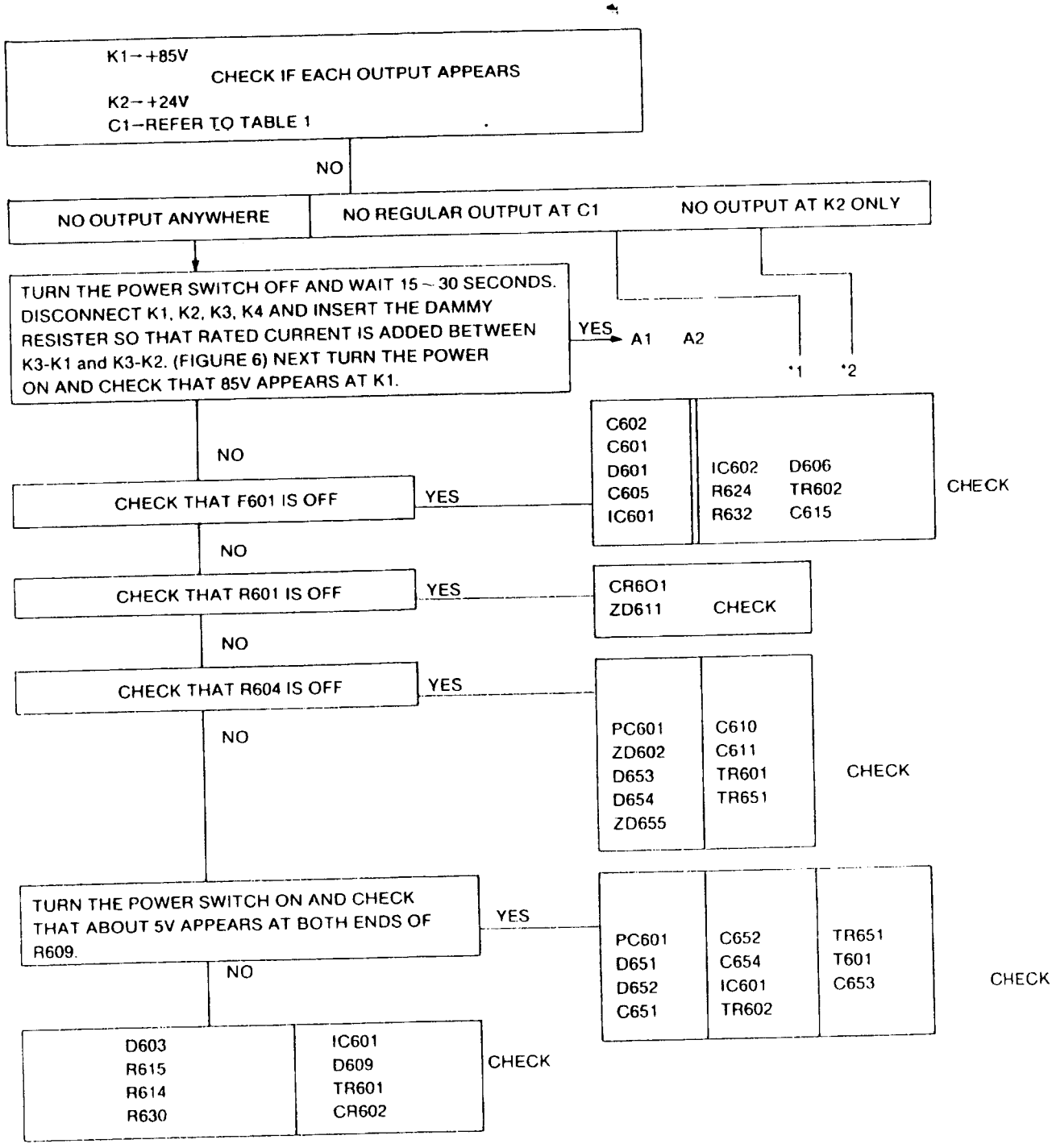
13. ABNORMAL TEXT MODE OPERATION

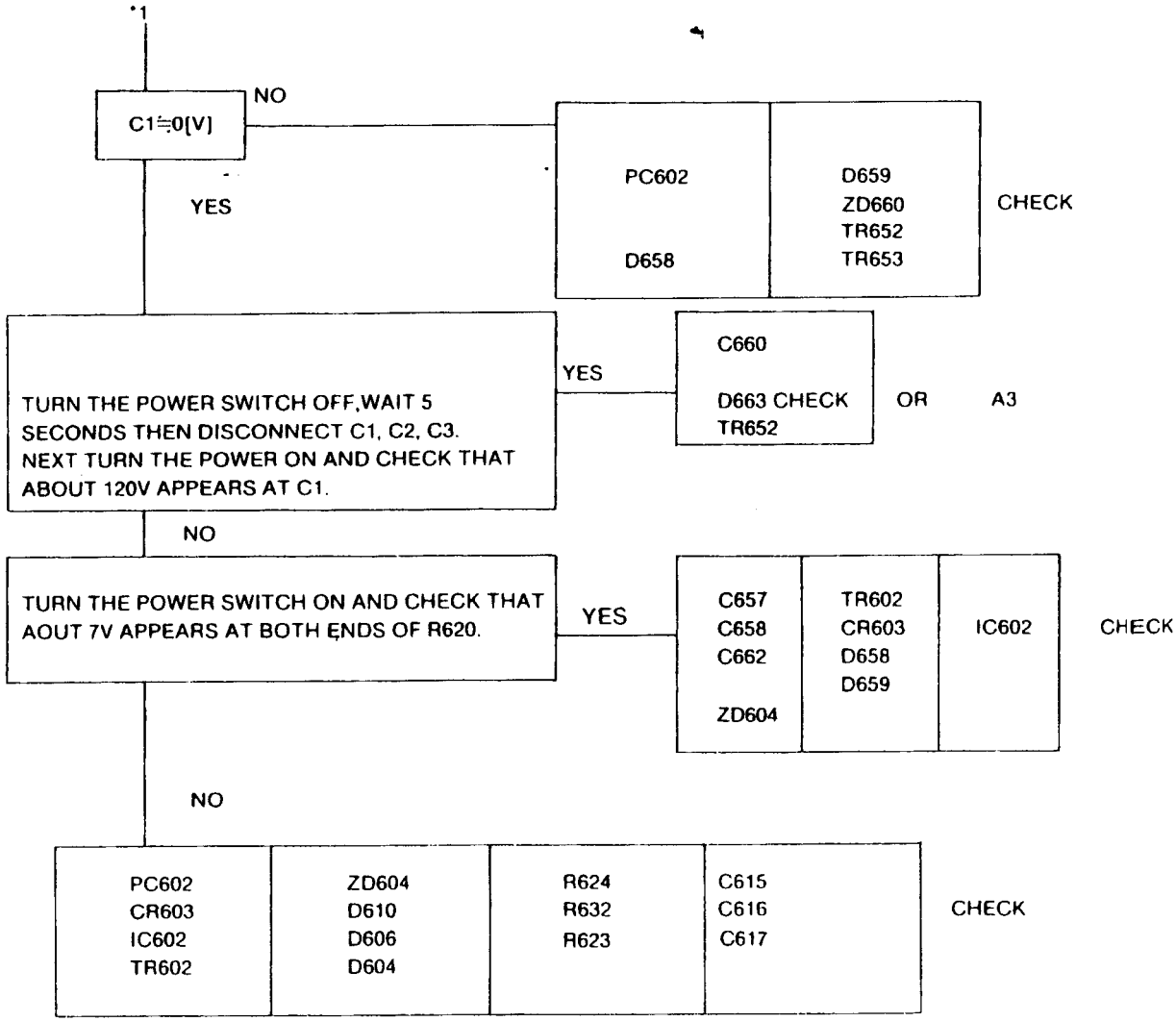


14. ABNORMAL COLOR AT TTL MODE



15. SWITCHING REGULATOR UNIT




*1
C1≒0[V]
NO
YES
PC602
D658
D659
ZD660
TR652
TR653
CHECK
TURN THE POWER SWITCH OFF,WAIT 5 SECONDS THEN DISCONNECT C1, C2, C3. NEXT TURN THE POWER ON AND CHECK THAT ABOUT 120V APPEARS AT C1.
YES
C660
D663 CHECK
TR652
OR
A3
NO
TURN THE POWER SWITCH ON AND CHECK THAT AOUT 7V APPEARS AT BOTH ENDS OF R620.
YES
C657
C658
C662
ZD604
TR602
CR603
D658
D659
IC602
CHECK
NO
PC602
CR603
IC602
TR602
ZD604
D610
D606
D604
R624
R632
R623
C615
C616
C617
CHECK

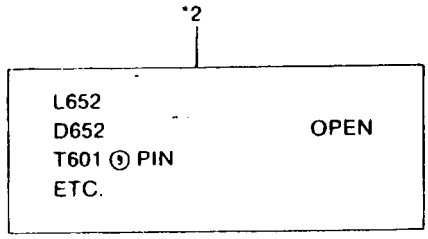
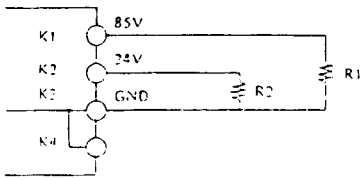


TABLE 1. C1 OUTPUT VOLTAGE

HORIZONTAL FREQUENCY [kHz]	C1 VOLTAGE [V]
15.85 (CGA)	53
22 (EGA)	65
30.48 (PGC)	94
31.5 (VGA)	98

WITH NO INPUT SIGNAL, ABOUT 45V SHOULD APPEARS AT C1.

FIGURE 6. RATED LOAD CURRENT AT K1 AND K2 TERMINAL



+85V	0.015 ~ 0.18A R1 (5.67KΩ ~ 472Ω)
+24V	0.4 ~ 1.0A R2(60Ω ~ 24Ω)

ATTENTION) DO NOT POWER ON SW.REG. UNIT ITSELF WITHOUT THE LOAD AT K1,K2,
OR IT MAY MISOPERATE PROTECTOR.

MAIN VOLTAGE LINE FAILURE EXCEPT SW.REG.UNIT

VOLTAGE LINE		FAILURE PARTS	PWB ASSY	REMARKS
85V CONNECTOR K1 ~ K3		D554,D555 TR553, TR554	DEF PWB PWE-194	
		C708 ~ C709 TR707 ~ TR712	VIDEO PWB PWE-207A	
24V K2 ~ k3 AND ASSOCI- ATED VOLTAGE LINE	24V CONNECTOR K2 ~ K3	C413, C5C3 IC402,IC502	DEF PWB PWE-194	
	16V POINT TP5E1	R5E1,C5E1,ZD5E1 TR5E1,TR5E2 IC451 ~ IC454,IC456 IC551 ~ IC557, IC559	DEF PWB PWE-194	
	12V CONNECTOR P1 ~ P4	C5C5, C5C6, C5C7 R5C9, IC502	DEF PWB PWE-194	
	6V CONNECTOR HC2 ~ HC1	C5C1 ~ C5C3 CR5C1, ZD5C1, TR5C2 IC501	DEF PWB PWE-194	
45 ~ 120V CONNECTOR C1 ~ C3		C516,C514A,C514B,C515,C575 D501, TR502, T502(F.B.T) DEFLECTION YOKE	DEF PWB PWE-194	
HIGH VOLTAGE FEEDBACK VOLTAGE CONNECTOR C2 ~ C3		R2001,D2001,C2001	DEF PWB PWE-194	

REPLACEMENT PARTS LIST

Note: The components identified by △ mark are critical for safety. Replace only with parts Number specified

All components are common for models: JC-1402HME/EE/N/R except for the parts indentified by model name in symbol part.

SYMBOL	PARTS NO	DESCRIPTION	QTY
*** CRT & TUNER ***			
△CRT(JC-1402HMR/RR/N)	33014137	CRT M34JUP23XX15E	1
△CRT(JC-1402HMR)	33014140	CRT M34JUP23XX15B (R)	1
*** ICS ***			
IC453 IC454 IC554	37011054	IC UPC339C (COMP)	3
IC456 IC557 IC559	37051034	MOS UPD4066BC (ESD)	3
IC55C	37051054	IC SN74LS74AN (FLIP)	1
IC851 IC852	37051179	IC SN74LS123N (MONO MLT)	2
IC803 IC804 IC805	37052011	IC SN74LS136N (EX-OR)	4
IC853			
IC451 IC551	37056178	IC UPC1555C	2
IC452 IC552 IC553	37056207	IC UPC358	3
IC555 IC556	37056217	MOS TC4539BP	2
IC5C1	37056219	IC STP2C05	1
IC5C2	37056220	IC STP2C12	1
IC8C2	37056245	IC M51387P	1
△IC6C2	37056250	IC STK-74C4H-105	1
△IC6C1	37056353	IC STK74C6H	1
△IC4C1	37056409	IC HA114230P-16	1
IC8C1	37056421	MOS PC75C-4C	1
IC4C2	37056427	IC UPC1499H	1
*** TRANSISTORS ***			
TR5E2	35CD7217	TR,2SC945-T G	1
TR4C3 TR48F	35CE3212	TR,2SC2CC3-T L	2
△TR2CC2 TR401 TR405 TR409 TR459 TR462 TR5E2 TR5C3 TR552 TR715 TR71E TR81C TR811 TR812 TR851 TR852 TR857 TR859 TR86C TR863 TR9C4 TR9C8	35CE6518	TR 2SC1740-T R	24
TR9C5 TR9C6 TR9C7	35CH4417	TR,2SC1473-TA G	3
TR55E TR7C4 TR7C5 TR7C6 TR8C4 TR8C5 TR8C6 TR9C7 TR8C8 TR8C9 TR825 TR853 TR854 TR858	35CH5C17	TR,2SC3311-TA G	14
TR4C4	35CP4417	TR,2SA952 L	1
△TR2CC1 TR4C2 TR4C6 TR41C TR461 TR713	35CP4519	TR 2SA933-T R	12
TR714 TR716 TR717 TR8C1 TR8C2 TR8C3 TR9C1 TR9C2 TR9C3 TR71C TR711 TR712	35CS5217	TR,2SA1C16-TA G	3
	35CD6804	TR,2SA1536-RA D	3
△TP6C1 △TR6C2	35C4721C	TR,2SC945 P	2
△TR651 △TR652 △TR657	35C53C11	TR,2SC1941 K	3
TR5C1	35C56311	TR,2SC2655 K	1
TR5F1	35C65414	TR,2SD382 P	1
TR5C2	35C65912	TR,2SD471 L	2
△TR5C2	35CP24C1	TR 2SC3486-YE	1
TR7C1 TR7C2 TR7C3	35CP25C5	TR,2SC35C2 E	3
TR7C7 TR7C8 TR7C9	35CE6C04	TR,2SC3953-RA L	3
TR453 TR454 TR455	351GC5C0	TR,AN1A4M-T	5
TR456 TR457			
TR463 TR464 TR856	351GC5C1	TR,AA1A4M-T	5
TR8E8 TR8C9			
TR452 TR465 TR466	351GC531	TR,AA1L4M-T	7
TR467 TR557 TR861			
TR862			
TP817 TR818 TP819	351GC6C0	TR,DTA114ES-T	6
TR821 TR822 TR826			
TR1 TR451 TR719	351GC6C1	TR,DTC114ES-T	13
TR823 TR824 TR827			
TR828 TR829 TR855			
TR864 TR865 TR866			
TR867			
TR814 TR815 TR816	351GC613	TR,DTC123YS-T	3
△TR553 △TR554	351221CC	TR 2SK7C3	2
△TR555	351222CC	TR 2SK654	1
CR5C1 △CP6C2 △CP6C3	35595C1C	THYRISTOR C3F4M-L	3
△CR6C1	35595C15	TRIAC AC1CF6M	1
*** DIODES ***			
D7C1 D7C2 D7C3 D7C4 D7C5 D7C6 D7C7 D7C8 D7C9	36CK1CC9	DIODE,SI.1S2473	9
△D6C9 △D61C △D653 △D654 △D658 △D659 △D661 △D662 △D663 D713	36CK1C1C	DIODE,SI.1S2472	1C
D2 D3 D4C2 D4C3 D4C4 D4C5 D4C6 D4C7 D451 D452 D453 D454 D5C3 D551 D552 D553 D710 D711 D712 D8C1 D8C2 D8C3 D8C4 D8C5	36CK1C27	DIODE 1SS132	44

SYMBOL			PARTS NO	DESCRIPTION	QTY
D2C6	D2C7	D2C8			
D2C9	D2C10	D2C11			
D2C12	D2C13	D2C14			
D2C15	D2C16	D2C17	360K1027	DIODE 1SS122	44
D2C18	D2C19	D2C20			
D2C21	D2C22	D2C23			
D2C24	D2C50				
△D6C7	△D6C8	D9C1	360K1032	DIODE 1SS82-TA	5
D9C2	D9C3				
ZD4C2	ZD85C	ZD851	360K3100	DIODE RD5.1EB (2)-T4	3
ZD5C1			360K3121	DIODE PD6.8EB(3)-T4	1
ZD4C4			360K3123	DIODE RD2CEB(3)	1
ZD7C1			360K3124	DIODE PD6.2EB (3)-T4	1
△ZD6C4			360K3126	DIODE,MC27EB(4)-T4	1
△ZD6C5			360K3127	DIODE,RD7.5EB(2)-T4	1
△ZD2C01	△ZD2C02		360K3143	DIODE,RD6.2JSB(1)-T4	2
△ZD6C2			360K3149	DIODE RD1CEB(2)-T4	1
△ZD655	△ZD66C		360K3151	DIODE RD6.8EB(2)-T4	2
ZD5C2			360K3160	DIODE RD8.2EB(2)-T4	1
△ZD611			360K3162	DIODE,RD2.7EB(1)-T4	1
ZD5C3			360K3189	DIODE RD3.9EB(2)-T4	1
ZD5C1			360K3400	DIODE RD12JSB-T4	1
ZD4C1			360K3401	DIODE RD2CJSB-T4	1
ZD8C2			360K3635	DIODE RD5.1ESB(2)-T4	1
ZD8C1			360K3660	DIODE RD9.1ESB(3)-T4	1
ZD5E1			36003170	RECTIFIER,SI.PD6.2JSB(2)	1
△D2C01	△D2C04	D4C1	361K7160	RECTIFIER,SI. TVR-C6G G23	8
D5C1	D5C2	D5C3			
△D554	△D555				
D5C2			361K7505	RECTIFIER,SI.ERB44-C6V1	1
△D6C3	△D6C6		36107174	RECTIFIER,SI. RU1P	2
△D651			36107305	DIODE RL2B	1
△D5C1			36107509	DIODE RM4F	1
△D652			36107511	RECTIFIER,SI. RL4Z,LFK2	1
△D657			36107512	RECTIFIER,SI. RG4C,LFK2	1
FD8C2			36108092	DIODE ARRAY 1S2473X9A	1
FD8C1			36108093	DIODE 1S2473X9K	1
△D6C1			36108201	DIODE,NETWORK DSS2A6CS	1
D1			36801023	DIODE,LIGHT-E SEL1322G	1
△D2C02	△D2C05		38005011	VARISTER,V01220	2
△TH6C1			38112031	THERMISTOR,POSITIVE	1
△PC6C1	△PC6C2		38200233	IC TLP634(NHE-LF2)	2

*** TRANSFORMERS ***

T5C1	45803008	TRANS,H.DRIVE	1
T5C3	46305101	TRANS,CONVERTER	1

SYMBOL			PARTS NO	DESCRIPTION	QTY
△T6C1			46306407	TRANS,SWITCHING	1
△T6C2			46306408	TRANS,SWITCHING	1
△T5C2			47105637	F.B.T(JC-1402HME/EE/R/N)	1
△T502			47105640	F.B.T.(JC-1402HMED)	1
△T4C1			47502042	TRANS,SIDE PINCUSHION	1

*** VARIABLE RESISTORS ***

VR4			41011270	R,VARIABLE B5C0-V(M)	1
VR3			41011273	R,VARIABLE B20K-V(M)	1
VR5			41011275	R,VARIABLE B20K-V(M)	1
VR1	VR2		41023603	R,VARIABLE B10K-V	2
VR4C3			41041009	R,VARIABLE B47K	1
VR4C2			41067003	R,VARIABLE 300H 0.1W	1
VR5E1			41067005	R,VARIABLE 1K 0.1W	1
VR4C1	VR5C1		41067009	R,VARIABLE 5K	2
VR8C1	VR8C2	VR8C3	41071161	R,VARIABLE B4.7K	3
VR7C1			41071210	R,VARIABLE B3.3K	1
VR4C5			41085004	R,VARIABLE B5C0H	1
VR5C1			41085005	R,VARIABLE B5K	1
VR551			41085009	R,VARIABLE B10K	1
VR451	VR552	VR553	41085010	R,VARIABLE B20K	5
VR554	VR555				
VR9C1	VR9C2	VR9C3	41085013	R,VARIABLE B100K	6
VR9C4	VR9C5	VR9C6			
VR5C2			41085014	R,VARIABLE B200K	1
△VR651			41087058	R,VARIABLE B5K	1
△VR2C01	△VR2C02	△VR652	41505009	R,VARIABLE B2K	3
△VR2C03	△VR653		41505008	R,VARIABLE B10K	2

*** RELAYS & SWITCHES ***

SW3		65161021	SWITCH,SLIDE	1
SW8C3		65161029	SWITCH,SLIDE	1
SW1	SW2	65161034	SWITCH,SLIDE	2
SW8C1	SW8C2	65161035	SWITCH,SLIDE	2
△SW1		65360006	SWITCH,PUSH BUTTON	1
△RL1		65602501	RELAY G6B-1114P	1
RL8C2		65602551	RELAY	1
RL8C1	RL8C3	65699012	RELAY RY12W4 (2T)	2

*** COILS & FILTERS ***

L8C2	39099015	FILTER 2JSC-2R2-101	1
L505	60908043	COIL,VARIABLE WIDTH	1
△L5C3	60908047	COIL,WIDTH	1
△L5C6	60916101	COIL,H.LIN	1

SYMBOL	PARTS NO	DESCRIPTION	QTY
△L5C7	6C999CC4	COIL,CHOKE	1
L7C1 L7C2 L7C3 L9C1 L9C2 L9C3 L7C4 L7C5 L7C6 L8C1 L8C2 L5C2 L5C2	610E1711	COIL,FILTER 3.3UH	6
	610E1712	COIL,FILTER 3.9UH	3
	610E1714	COIL,FILTER 5.6UH	2
	610F7C10	COIL,FILTER 2.7UH	1
	61C22C32	FILTER CHOKE	1
△L6C1 L5C1 L5D1 △L6C2 △L651 △L653 △L652	61C62C54	LINE FILTER	1
	61D64CC6	COIL,FILTER 5CUH	2
	61C99C11	COIL,CHOKE 33UH	3
	61C99C14	COIL 33CK1.8	1
L5C3 L5C5	61C99C19	COIL,CHOKE	2
△DEG	6131421C	COIL,DEGAUSSING	1
LC7C1	61606C21	NOISE FILTER DSS-271Y	1
LC8C1	61606C23	FILTER DSS-223S	1

*** PWB ASSYS ***

	84K1CCC4	INPUT PWB ASSY	1
	84K1CDC4	DEF PWB ASSY	1
	84K1CJ01	CRT PWB ASSY	1
	84K1CK03	INTERFACE PWB ASSY	1
	84K11AC2	SW.REG.PWB ASSY	1

*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***

	32500C28	ADAPTER (9P-15P)	1
SG9C1 SG9C2 SG9C3	3299CC47	ARRESTER	3
△F6C1 △F651	66699CC7	FUSE ET T2A,250V-S,B SOC	2
SG9C5	66706C01	SPARK GAP 1.2KV	1
△ CN1	70032026	SG/CRT SOCKET	1
	7C056358	D SUB CONNECTOR 9PL	1
	7C102147	IC SOCKET 24P	1
△	70800322	LINE CORD(JC-1402HMEE)	1
△	70800031	LINE CORD (JC-1402HME/N)	1
△	73513006	LINE CORD SAA L2.0(JC-1402HMR)	1
	71205C37	HOLDER,FUSE	4
CN-RH CN-RH1 CN-RH2 CN-RH3	73721CC3	CONNECTOR PIN 2P	5
	73893C29	CABLE 9P-9P	1

*** APPEARANCE PARTS ***

	24514792	COIL SPRING	1

SYMBOL	PARTS NO	DESCRIPTION	QTY
	25307951	CABINET FRONT ASSY	1
	25307972	CABINET BACK	1
	25402441	REVOLVING STAND T	1
	25405971	REVOLVING STAND(B) ASSY	1
	25407361	CONTROL LID ASSY	1
(JC-1402HME)	257655C2	NAME PLATE,INSTRUCTION	1
(JC-1402HMR)	25765681	NAME PLATE, INSTRUCTION	1
(JC-1402HMEE)	25766011	NAME PLATE, INSTRUCTION	1
(JC-1402HMN)	25766591	NAME PLATE, INSTRUCTION	1

*** KNOBS & PUSH BUTTONS ***

	25451881	KNOB,CONTROL	2
	254523C1	PUSH BUTTON	1

*** PRINTED & PACKING MATERIALS ***

(JC-1402HMEE)	24813501	BAG ,POLYETHYLENE	1
(JC-1402HME/R/N)	24806961	BAG,POLYETHYLENE(270*370)	1
(JC-1402HME/R/N)	24813191	BAG,POLYETHYLENE(150*370)	1
	25280161	GUIDE RAIL	1
	25601551	CUSHION SHEET	4
	25603511	BARRIER (SW.REG.PWB)	1
(JC-1402HMEE)	25815061	BAG, POLYETHYLENE(270*370)	1
	25605021	CUSHION SHEET	2
(JC-1402HME/R/N)	25804991	BAG,POLYETHYLENE	1
	25813912	FILLER(L),CARTON	1
	25813922	FILLER(R),CARTON	1
(JC-1402HME)	25813932	CARTON BOX	1
(JC-1402HMR)	25814182	CARTON BOX	1
(JC-1402HMEE)	25814451	CARTON BOX	1
(JC-1402HMN)	25814971	CARTON BOX	1
(JC-1402HMR)	78043392	WARRANTY CARD	1
	78034401	MONITOR SALES OFFICE LIST	1
	78120214	INSTRUCTION BOOK	1
	599910266	SERVICE MANUAL	1
	599910271	CIRCUIT DESCRIPTION	1

*** RESISTORS ***

R501 R503	4C1C6637	R,CARBON 33K 5% 1/4W	1
	4C1C6667	R,CARBON 560K 5% 1/4W	1
R501 △R6C2 △R6C8 △R611 △R619 △R663 △R6C9 △R620 △R662	4C1C6673	R,CARBON 1.0K 5% 1/4W	6
	4C1C6675	R,CARBON 1.2K 5% 1/4W	2
	4C1C6679	R,CARBON 1.8K 5% 1/4W	1
R5E2	4C1C6681	R,CARBON 2.2K 5% 1/4W	1
R527 △R631	4C1C6683	R,CARBON 2.7K 5% 1/4W	2

SYMBOL			PARTS NO	DESCRIPTION	QTY
R5A2	R598	R599	401C4665	R,CARBON 3.3K 5% 1/4W	6
△R628	△R633	△R656			
R49C	△R636	△R655	401C6691	R,CARBON 5.6K 5% 1/4W	4
△R666					
R585			401C6697	R,CARBON 6.8K 5% 1/4W	1
R467			401C67C1	R,CARBON 15K 5% 1/4W	1
R448			401C67C3	R,CARBON 18K 5% 1/4W	1
△R664			401C67C5	R,CARBON 22K 5% 1/4W	1
△R627			401C67C7	R,CARBON 27K 5% 1/4W	1
R482	R488		401C6721	R,CARBON 100K 5% 1/4W	2
△R657			401C6723	R,CARBON 120K 5% 1/4W	1
R473			401C6757	R,CARBON 3.3M 5% 1/4W	1
R478	R5A6	R574	401C6761	R,CARBON 4.7M 5% 1/4W	5
R578	R582				
R51C			401H5627	R,CARBON 8.2M 5% 1/2W	1
R451			401H5646	R,CARBON 75M 5% 1/2W	1
R9C4	R9C5	R9C6	401H5649	R,CARBON 100M 5% 1/2W	3
R7C4E	R7C4G	R7C4R	401H5651	R,CARBON 120M 5% 1/2W	3
R823			401H5655	R,CARBON 180M 5% 1/2W	1
R828			401H5661	R,CARBON 330M 5% 1/2W	1
R45C			401H5663	R,CARBON 390M 5% 1/2W	1
R526			401H5669	R,CARBON 680M 5% 1/2W	1
R4A1	R4B4		401H5673	R,CARBON 1.0K 5% 1/2W	2
R582	R583		401H5683	R,CARBON 2.7K 5% 1/2W	2
R5C9	R936		401H5689	R,CARBON 4.7K 5% 1/2W	2
△R6C5	△R6C6		401H5735	R,CARBON 39CK 5% 1/2W	2
△R6C3			401H5743	R,CARBON 82CK 5% 1/2W	1
△R618			401H5753	R,CARBON 2.2M 5% 1/2W	1
R71C	R915		401K5625	R,CARBON 10M 5% 1/6W	2
R7C2E	R7C2C	R7C2R	401K5647	R,CARBON 82M 5% 1/6W	6
R7C5B	R7C5G	R7C5R			
R413	R5C3		401K5649	R,CARBON 100M 5% 1/6W	2
R414			401K5651	R,CARBON 120M 5% 1/6W	1
R724	R853		401K5657	R,CARBON 220M 5% 1/6W	2
R8C7G			401K5659	R,CARBON 270M 5% 1/6W	1
R935			401K5661	R,CARBON 330M 5% 1/6W	1
R5C8	R817E	R817G	401K5665	R,CARBON 470M 5% 1/6W	4
R817R					
R417H	R496	R567	401K5667	R,CARBON 560M 5% 1/6W	6
R7C1G	R7C1G	R7C1P			
R712	R8C7E		401K5669	R,CARBON 680M 5% 1/6W	2
R4A8	R4B3	R423	401K5673	R,CARBON 1.0K 5% 1/6W	20
R5C2	R5C7	R534			
R53C	R7C0	R721			
R722	R832	R833			
R834	R835	R836			
R837	R9C1	R9C2			

SYMBOL			PARTS NO	DESCRIPTION	QTY
R9C3	R934				
R827			401K5675	R,CARBON 1.2K 5% 1/6W	1
R495	R516	R711	401K5677	R,CARBON 1.5K 5% 1/6W	11
R8C1E	R8C1G	R8C1R			
R8C2E	R8C2G	R8C2R			
R895	R896				
△R2CC2	R447		401K5679	R,CARBON 1.8K 5% 1/6W	2
R2	R4A7	R436	401K5681	R,CARBON 2.2K 5% 1/6W	25
R456	R457	R459			
R5E3	R529	R814			
R852	R854	R857			
R858	R860	R861			
R867	R873	R874			
R884	R885	R886			
R888	R890	R893			
R931					
△R2CC3	R411	R71E	401K5683	R,CARBON 2.7K 5% 1/6W	6
R723	R863	R881			
△R2CC5	△R2CC9	R437	401K5685	R,CARBON 3.3K 5% 1/6W	12
R494	R5E4	R812P			
R812G	R812R	R856	401K5685	R,CARBON 3.3K 5% 1/6W	12
R87C	R922	R93C			
R439	R522	R533	401K5687	R,CARBON 3.9K 5% 1/6W	4
R557					
R4C3	R415	R424	401K5689	R,CARBON 4.7K 5% 1/6W	8
R551	R8C8P	R8C8G			
R8C8R	R879				
R1	R5B0	R5E5	401K5691	R,CARBON 5.6K 5% 1/6W	10
R5C2	R826	R865			
R866	R872	R883			
R929					
R402	R484	R515	401K5693	R,CARBON 6.8K 5% 1/6W	7
R7C3E	R7C3G	R7C3R			
R825					
△R2CC4	△R2CC8	R4C1	401K5695	R,CARBON 8.2K 5% 1/6W	12
R5C6	R5C6	R552			
R7C9	R715	R719			
R868	R869	R875			
△R2CC6	△R2C1C	R4B8	401K5697	R,CARBON 10K 5% 1/6W	23
R412	R452	R453			
R455	R5C4	R553			
R555	R556	R563			
R595	R725	R813			
R816	R838	R851			
R862	R871	R891			
R897	R920				
△R2C11	R4C0	R449	401K5699	R,CARBON 12K 5% 1/6W	11
R514	R567	R713			
R714	R864	R877			
R882	R921				
R4E1	R4E2	R4E6	401K57C1	R,CARBON 15K 5% 1/6W	18

SYMBOL			PARTS NO	DESCRIPTION	QTY
R487	R416	R472			
R477	R5A7	R573			
R577	R5E1	R5E9			
R592	R717	R8C9B			
R8C9C	R8C9P	R8E9			
R4A6	R43C	R431	401K57C5	R/CARBON 22K 5% 1/6W	10
R434	R436	R5C5			
R559	R597	R879			
R892					
R558	R716		401K57C7	R/CARBON 27K 5% 1/6W	2
R427	R596	R917	401K57C9	R/CARBON 33K 5% 1/6W	8
R918	R919	R923			
R924	R925				
△R2012			401K5711	R/CARBON 39K 5% 1/6W	1
R42C	R454	R485	401K5713	R/CARBON 47K 5% 1/6W	7
R486	R497	R887			
R889					
R594	R255		401K5715	R/CARBON 56K 5% 1/6W	2
R432	R926	R927	401K5717	R/CARBON 68K 5% 1/6W	4
R928					
R5A9	R55C		401K5719	R/CARBON 82K 5% 1/6W	2
R429	R479	R48C	401K5721	R/CARBON 100K 5% 1/6W	11
R481	R483	R439			
R5A8	R590	R829			
R83C	R831				
R485	R419	R497	401K5727	R/CARBON 180K 5% 1/6W	7
R498	R914	R915			
R916					
R535	R591	R876	401K5729	R/CARBON 220K 5% 1/6W	6
R9C8	R9C9	R91C			
R911	R912	R913	401K5731	R/CARBON 270K 5% 1/6W	3
R593			401K5739	R/CARBON 560K 5% 1/6W	1
R518			401K5745	R/CARBON 1.0M 5% 1/6W	1
R468			401K5753	R/CARBON 2.2M 5% 1/6W	1
R5C4			4017510C9	R/CARBON 2.2M 5% 1/4W	1
△R428			40175133	R/CARBON 22M 5% 1/4W	1
△R7C7E	△R7C7G	△R7C7R	40175141	R/CARBON 47M 5% 1/4W	6
△R7C8B	△R7C8G	△R7C9R			
△R63C	△R632	△R634	40175143	R/CARBON 56M 5% 1/4W	3
△R626	△R671		40175157	R/CARBON 220M 5% 1/4W	2
△R65E			40175161	R/CARBON 330M 5% 1/4W	1
△R612	△R614		40175183	R/CARBON 2.7M 5% 1/4W	2
△R661			40175165	R/CARBON 3.3M 5% 1/4W	1
△R623			40175189	R/CARBON 4.7M 5% 1/4W	1
△R5C9			40172117	R/CARBON 4.7M 5% 1/2W	1
△R6C1			40299107	R/WIRE 15M 10% 5W	1
R7CCE	R7CCG	R7CCR	40375172	R/METAL 1.8K 5% 5W	3
R5C8			40371139	R/METAL 27M 5% 1W	1

SYMBOL			PARTS NO	DESCRIPTION	QTY
△R667			40371137	R/METAL 33M 5% 1W	1
R5C7			40371143	R/METAL 56M 5% 1W	1
R44C			40371149	R/METAL 100M 5% 1W	1
R824			40371161	R/METAL 330M 5% 1W	1
R433			40371165	R/METAL 470M 5% 1W	1
R537			40371169	R/METAL 680M 5% 1W	1
R435			40372103	R/METAL 1.2M 5% 2W	1
△R615	△R624		40372107	R/METAL 1.8M 5% 2W	2
△R613			40372143	R/METAL 56M 5% 2W	1
△R622			40372145	R/METAL 68M 5% 2W	1
△R6C7			40372147	R/METAL 82M 5% 2W	1
△R616	△R625		40372149	R/METAL 100M 5% 2W	2
R426			40372157	R/METAL 220M 5% 2W	1
R53C			40372161	R/METAL 330M 5% 2W	1
R493			40372163	R/METAL 390M 5% 2W	1
R517			40372195	R/METAL 3.3K 5% 2W	1
△R652			40372203	R/METAL 18K 5% 2W	1
△R654			40372205	R/METAL 22K 5% 2W	1
△R665			40372217	R/METAL 68K 5% 2W	1
R511			40373163	R/METAL 390M 5% 3W	1
R512			40373165	R/METAL 470M 5% 3W	1
△R61C			40373181	R/METAL 2.2K 5% 3W	1
△R653			40373195	R/METAL 8.2K 5% 3W	1
△R66C			40373197	R/METAL 10K 5% 3W	1
△R659	△R670		40373203	R/METAL 18K 5% 3W	2
△R617	△R629		40373221	R/METAL 100K 5% 3W	2
△R6C4			40399C34	R/METAL 2.2K 5% 2W	1
R811B	R811G	R811R	404C1646	R/METAL 75M 1% 1/6W	3
R81CB	R81CG	R81CR	404C1653	R/METAL 150M 1% 1/6W	3
R82C			404C1657	R/METAL 220M 1% 1/6W	1
R8C4E	R8C4G	R8C4R	404C1661	R/METAL 330M 1% 1/6W	6
R8C6E	R8C6G	R8C6R			
R8C3E	R8C3G	R8C3R	404C1669	R/METAL 680M 1% 1/6W	6
R8C5E	R8C5G	R8C5R			
R4171			404C1677	R/METAL 1.5K 1% 1/6W	1
R417G	R422		404C1681	R/METAL 2.2K 1% 1/6W	2
R41E			404C1683	R/METAL 2.7K 1% 1/6W	1
R417	R421		404C1687	R/METAL 3.9K 1% 1/6W	2
R4C4	R5E2		404C1691	R/METAL 5.6K 1% 1/6W	2
R417C	R5E4		404C1694	R/METAL 7.5K 1% 1/6W	2
R821			404C1695	R/METAL 8.2K 1% 1/6W	1
R461	R818E	R812G	404C1697	R/METAL 10K 1% 1/6W	7
R818R	R819B	R819G			
R819R					
R417D	R562		404C1699	R/METAL 12K 1% 1/6W	2
R4A2	R4A4	R4C5	404C1701	R/METAL 15K 1% 1/6W	5

SYMBOL			PARTS NO	DESCRIPTION	QTY
R417A	R417E				
R561			4C4C17C4	R/METAL 20K 1% 1/6W	1
R410			4C4C17C7	R/METAL 27K 1% 1/6W	1
R407	R532		4C4C1711	R/METAL 39K 1% 1/6W	2
R417E	R531	R568	4C4C1717	R/METAL 68K 1% 1/6W	3
R464			4C4C1719	R/METAL 82K 1% 1/6W	1
R4C6	R564	R565	4C4C1721	R/METAL 100K 1% 1/6W	4
R566					
R409	R46C	R466	4C4C1723	R/METAL 120K 1% 1/6W	8
R57C	R571	R572			
R575	R579				
R5A5			4C4C1725	R/METAL 150K 1% 1/6W	1
R469			4C4C1727	R/METAL 180K 1% 1/6W	1
R4A9	R459	R5A4	4C4C1728	R/METAL 200K 1% 1/6W	4
R576					
R4C8	R474		4C4C1729	R/METAL 220K 1% 1/6W	2
R58C			4C4C1731	R/METAL 270K 1% 1/6W	1
R569			4C4C1737	R/METAL 470K 1% 1/6W	1
R462			4C4C1739	R/METAL 560K 1% 1/6W	1
R476			4C4K2717	R/METAL 68K 1% 1/4W	1
R471			4C4K2723	R/METAL 120K 1% 1/4W	1
△R2CC1	△R2CC7	△R5C5	4C4051C9	R/METAL 2.2M 5% 1/4W	4
△R513			4C4051C9	R/METAL 2.2M 5% 1/4W	4
R5E1			4C4C5117	R/METAL 4.7M 5% 1/4W	1
△R5C1			4C812649	R/FUSE 100H 5% 1/2W	1
△R524			4C812661	R/FUSE 330H 5% 1/2W	1
△R525	△R528		4C812665	R/FUSE 470H 5% 1/2W	2

*** CAPACITORS ***

C867			42CC9519	C/CERAMIC 50V 3300PF	1
△C518			42CC9557	C/CERAMIC 50CV 330UF	1
C511	△C517	△C519	42CC9560	C/CERAMIC 50CV 560PF	3
C513	C912	C913	42CC9563	C/CERAMIC 50CV 0.001UF	4
C914					
C9C5	C9C6	C9C7	42CC9567	C/CERAMIC 50CV 220CPF	4
C9C8					
C512			4201J575	C/CERAMIC 50CV 0.01UF	1
C911			42019175	C/CERAMIC 2KV 0.01UF	1
C521	△C626		4203J554	C/CERAMIC 50CV 180PF	2
C71C	C711	C712	4203J575	C/CERAMIC 50CV C.C1UF	3
△C603	△C604		42053C13	C/CERAMIC 4CCV 100CPF	2
△C606			42053C67	C/CERAMIC 4CCV 220CPF	1
△C663			42099C82	C/CERAMIC 2KV 1500PF	1
△C625			42099C82	C/CERAMIC 2KV 1500PF	4
△C612	△C618		42C99C89	C/CERAMIC 2KV 220PF	2
C453	C454	C554	421A0425	C/CERAMIC 50V C.01UF	11

SYMBOL			PARTS NO	DESCRIPTION	QTY
C564	C567	△C571			
C8C9E	C8C9G	C8C9R			
C817	C818				
C855	C866		421C0213	C/CERAMIC 50V 1CC0PF	2
C854			421C0215	C/CERAMIC 50V 1500PF	1
C2			421C0225	C/CERAMIC 50V 0.01UF	1
C414	C510	△C525	421J9CC1	C/CERAMIC 50V 0.1UF	16
C572	C7C1	C7C2			
C7C3	C717	C8C2			
C8C4	C8C6	C811			
C812	C819	C82C			
C916					
C9C4	C9C9		421J9C35	C/CERAMIC 16V 0.1UF	2
C41C			423A1C39	C/CERAMIC 50V 56PF	1
C7C4	C7C5	C7C6	423A1C41	C/CERAMIC 50V 68PF	3
C561	C565		423A1C53	C/CERAMIC 50V 220PF	2
C4C8	C551	C562	423A11C1	C/CERAMIC 50V 470PF	4
C566					
C556			423A11C4	C/CERAMIC 50V 680PF	1
C856			423A2C27	C/CERAMIC 50V 18PF	1
C5C3	C552		427A7CC5	C/FILM 1CCV 0.0022UF	2
C5C2			427A7C07	C/FILM 1CCV 0.0033UF	1
C857			427F4CC1	C/FILM 50V 100CPF	1
C452			427F4C25	C/FILM 50V 0.1UF	1
C4C5			427F4C51	C/FILM 50V 100CPF	1
C5C5			427F4C52	C/FILM 50V 390CPF	1
C425	C451		427F4C59	C/FILM 50V 470CPF	2
C427			427F4C6C	C/FILM 50V 560CPF	1
C4C3			427F4C61	C/FILM 50V 680CPF	1
C4C5			427F4C64	C/FILM 50V 0.012UF	1
C5C7			427F4C65	C/FILM 50V 0.015UF	1
△C6C8	△C614		427F4C69	C/FILM 50V 0.033UF	2
C5C1	C5C6		427F4C71	C/FILM 50V 0.047UF	2
△C656			427F4C73	C/FILM 50V 0.068UF	1
△C6C7	C715	C852	427F4C75	C/FILM 50V C.1UF	3
△C515			42703863	C/MYLAR 400V 0.01UF	1
△C575			42703865	C/FILM 400V 0.15UF	1
C522			42754267	C/FILM 200V 0.022UF	1
△C628			4276DC17	C/FILM 50V C.022UF	1
C4C1			4276DC55	C/FILM 50V 2200PF	1
△C655			4279JC58	C/FILM 100V 5600PF	1
△C613	△C619	△C659	42799C99	C/MYLAR 400V 0.033UF	3
△C514E			42808519	C/METAL FILM 1.6K 560CPF	1
△C514A			42808591	C/METAL FILM 1.6KV 2500PF	1
C4C4			4282CC25	C/METAL FILM 50V 1UF	1
△C6C2			42824325	C/FILM 250V 0.1UF	1

SYMBOL			PARTS NO	DESCRIPTION	QTY
△C601			42824329	C,FILM 250V 0.22UF	1
△C661			42840131	C,METAL FILM 250V 0.068UF	1
C901	C902	C903	42899C10	C,METAL FILM 250V 0.22UF	3
△C627			42899C25	C,METAL FILM 250V 0.1UF	1
△C520	△C569	△C570	42899C42	C,METAL FILM 400V 0.64UF	3
C402			430A4105	C,ELEC 50V 1UF	1
C810E	C810G	C810R	430A4107	C,ELEC 50V 2.2UF	3
C853	C860	C861	430A9C62	C,ELEC 50V 2.2UF	3
C8C7E	C8C7G		430B3C49	C,ELEC 16V 47UF	2
C412			430B3C90	C,ELEC 35V 100UF	1
C413			430B3C91	C,ELEC 35V 220UF	1
△C66C			430B31C1	C,ELEC 50V 0.47UF	1
C7C7	C7C8	C7C9	430B3182	C,ELEC 160V 1UF	3
△C611	△C617		430B5C51	C,ELEC 16V 220UF	2
△C61C	△C616		430B5C53	C,ELEC 16V 470UF	2
△C6C9	△C615		430B51C5	C,ELEC 50V 4.7UF	2
△C62C	△C621		430B51C7	C,ELEC 50V 22UF	2
△C2CC2	△C2CC5	C719	430B6C15	C,ELEC 10V 470UF	4
C815					
C5C3			430B6C16	C,ELEC 10V 100UF	1
C5C4	C814		430B6C17	C,ELEC 10V 220UF	2
C5C2			430B6C20	C,ELEC 10V 1000UF	1
C5E2	C8C1	C816	430B6C25	C,ELEC 16V 10UF	7
C858	C862	C864	430B6C25	C,ELEC 16V 10UF	7
C868					
C423	C455	C456	430B6C26	C,ELEC 16V 22UF	4
C457					
C713			430B6C27	C,ELEC 16V 33UF	1
C8C3	C8C7R	C8C8F	430B6C28	C,ELEC 16V 47UF	6
C8C8G	C8C8R	CRS1			
C714	C8C5		430B6C29	C,ELEC 16V 100UF	2
C429	C5C9	C813	430B6C30	C,ELEC 16V 220UF	3
C416	C5C6	C5C7	430B6C31	C,ELEC 16V 330UF	3
C553	C563		430B6C38	C,ELEC 25V 10UF	2
C5E1			430B6C41	C,ELEC 25V 47UF	1
C419	C5C5		430B6C54	C,ELEC 35V 100UF	2
C5C1			430B6C56	C,ELEC 35V 330UF	1
△C2CC4			430B6C65	C,ELEC 50V 10UF	1
C421	C422		430B6C66	C,ELEC 50V 22UF	2
△C2CC1			430B6C68	C,ELEC 50V 47UF	1
C523			430B6536	C,ELEC 200V 10UF	1
C863	C865		4301JC29	C,ELEC 16V 100UF	2
△C653			43C2C17C	C,ELEC 100V 100UF	1
[illegible]			43C2C172	C,ELEC 100V 330UF	1
△C664			43C2C182	C,ELEC 16V 1UF	1
C516	△C657	△C658	43C2C19C	C,ELEC 16CV 100UF	4

SYMBOL			PARTS NO	DESCRIPTION	QTY
△C662					
△C654			43C2EC9C	C,ELEC 35V 100UF	1
△C652			43C2JC5E	C,ELEC 35V 1000UF	1
C718			43C26C32	C,ELEC 16V 470UF	1
C42C			43C26C73	C,ELEC 50V 100UF	1
△C6C5			4310B1C5	C,ELEC 400V 220UF	1
C85C			433A3C22	C,ELEC 16V 10UF	1
C424			433A3C23	C,ELEC 16V 22UF	1
C415			433A3C25	C,ELEC 16V 47UF	1
C716			433A3C43	C,ELEC 35V 4.7UF	1
C428			435A5C53	C,TANTALUM 16V 4.7UF	1
C418			435A5C55	C,TANTALUM 16V 10UF	1
C5C4			435A5C71	C,TANTALUM 35V 1UF	1
C859			435A5C73	C,TANTALUM 35V 2.2UF	1
C555	C557		435A8254	C,TANTLM 25V 3.3UF	2

REPLACEMENT PARTS LIST

Note: The components identified by △ mark are critical for safety.
Replace only with parts Number specified.

The components specified for Model JC-1402HMED

SYMBOL	PARTS NO	DESCRIPTION	QTY
*** CRT & TUNER ***			
△CRT	33014147	CRT M34JUP23XX15B (2)	1
*** ICS ***			
IC453 IC454 IC554	37011C54	IC UPC339C (COMP)	3
IC456 IC557 IC559	37051C36	MOS UPD4066BC (ESD)	3
IC850	37051C96	IC SN74LS367AN (BUFF)	1
IC851 IC852	37051179	IC SN74LS123N (MONO MLT)	2
IC803 IC804 IC805	37052011	IC SN74LS136N (EX-OR)	4
IC853			
IC451 IC551	37056178	IC UPC1555C	2
IC452 IC552 IC553	37056207	IC UPC358	3
IC555 IC556	37056213	MOS TC4538BF	2
IC501	37056219	IC STR2005	1
IC502	37056220	IC STR2012	1
IC802	37056245	IC MS1387P	1
△IC602	37056250	IC STK-7404H-105	1
△IC601	37056353	IC STK7406H	1
△IC401	37056405	IC HA11423DP-1B	1
IC801	37056421	MOS PC28C-40	1
IC402	37056427	IC UPC1498H	1
*** TRANSISTORS ***			
TR5E2	35007217	TR,2SC945-T Q	1
TR403 TR408	35003212	TR,2SC2002-T L	2
△TR2002 TR401 TR405	35006518	TR 2SC1740-T P	23
TR407 TR409 TR458			
TR459 TR462 TR5E2			
TR503 TR552 TR715			
TR71E TR81C TR811			
TR812 TR851 TR852			
TR857 TR859 TR86C			
TR863 TR908			
TR905 TR906 TR907	35004417	TR,2SC1473-TA G	3
TR558 TR704 TR705	35005017	TR,2SC3811-TA G	14
TR706 TR804 TR805			
TR806 TR807 TR808			
TR809 TR825 TR853			
TR854 TR858			
TR404	350K4412	TR,2SA952 L,AT	1
△TR2001 TR402 TR406	350K4516	TR 2SA933-T R	12
TR410 TR461 TR713			
TR714 TR716 TR717			
TR801 TR802 TR803			

SYMBOL	PARTS NO	DESCRIPTION	QTY
TR901 TR902 TR903	350K5217	TR,2SA1C18-TA Q	3
TR904	350K5218	TR,2SA1C18-TA R	1
TR710 TR711 TR712	35C068C4	TR,2SA153E-RA D	3
△TR601 △TR602	35047216	TR,2SC945 P	2
△TR651 △TR652 △TR653	35053011	TR,2SC1941 K	3
TR501	35056311	TR,2SC2688 K	1
TR5E1	35065416	TR,2SD882 P	1
TR502 TR813	35C65912	TR,2SD471 L	2
△TR502	350824C1	TR 2SC3486-YB	1
TR7C1 TR702 TR7C3	350825C5	TR,2SC35C2 E	3
TR707 TR708 TR7C9	35086CC4	TR,2SC3953-RA D	3
TR453 TR454 TR455	351G05C0	TR,AN1A4M-T	5
TR456 TR457			
TR463 TR464 TR856	351G05C1	TR,AA1A4M-T	7
TR861 TR862 TR868			
TR869			
TR452 TR465 TR466	351GC531	TR,AA1L4M-T	5
TR467 TR557			
TR817 TR818 TR819	351GC6C0	TR,DTA114ES-T	6
TR821 TR822 TR826			
TR1 TR451 TR719	351GC6C1	TR,DTC114ES-T	13
TR823 TR824 TR827			
TR828 TR829 TP855			
TR864 TR865 TP866			
TR867			
TR814 TR815 TR816	351GC613	TR,DTC123YS-T	3
△TR553 △TR554	35122100	TR 2SK7C3	2
△TR555	35122200	TR 2SK854	1
CP5C1 △CR602 △CR6C3	35595C1C	THYRISTOR C3F4M-L	3
△CR6C1	35595C15	TPIAC AC10FGM	1
*** DIODES ***			
D7C1 D7C2 D7C3	360K1C09	DIODE,SI.1S2473	9
D7C4 D7C5 D7C6			
D7C7 D7C8 D7C9			
△D609 △D610 △D653	360K1C1C	DIODE,SI.1S2472	10
△D654 △D658 △D659			
△D661 △D662 △D663			
D713			
D2 D3 D4C2	360K1C27	DIODE 1SS132	44
D4C3 D4C4 D4C5			
D4C6 D407 D451			
D452 D453 D454			
D5C3 D551 D552			
D553 D710 D711			
D712 D8C1 D8C2			
D8C3 D8C4 D8C5			
D8C6 D8C7 D8C8			
D8C9 D810 D811			

SYMBOL	PARTS NO	DESCRIPTION	QTY
D812 D813 D814 D815 D816 D817 D818 D819 D820 D821 D822 D823 D824 D850	360K1C27	DIODE 1SS132	44
△D6C7 △D608 D9C1 D902 D9C3	360K1C32	DIODE 1SS82-TA	5
ZD4C2 ZD85C ZD851	360K31C0	DIODE RD5.1EB (2)-T4	3
ZD5C1	360K3121	DIODE RD6.8EB(3)-T4	1
ZD4C4	360K3123	DIODE RD2CEB(3)	1
ZD7C1	360K3124	DIODE RD8.2EB (3)-T4	1
△ZD6C4	360K3129	DIODE,RD27EB(4)-T4	1
△ZD6C5	360K3137	DIODE,RD7.5EB(2)-T4	1
△ZD2C01△ZD2CC2	360K3143	DIODE,RD8.2JSB(1)-T4	2
△ZD6C2	360K3149	DIODE RD1CEB(2)-T4	1
△ZD655 △ZD66C	360K3151	DIODE RD6.8EB(2)-T4	2
ZD5C2	360K3160	DIODE RD8.2EB(2)-T4	1
△ZD611	360K3162	DIODE,RD2.7EB(1)-T4	1
ZD5C3	360K3188	DIODE RD3.9EB(2)-T4	1
ZD5C1	360K34CC	DIODE RD12JSB-T4	1
ZD4C1	360K3401	DIODE RD2CJSB-T4	1
ZD8C2	360K3635	DIODE RD5.1FSB(2)-T4	1
ZD8C1	360K366C	DIODE RD9.1ESB(3)-T4	1
ZD5E1	36003170	RECTIFIER,SI.RD6.2JSB(2)	1
△D2CC1 △D2CD4 D4C1 D5C1 D5C2 D5C7	361K716C	RECTIFIER,SI. TVR-C6G G23	8
△D554 △D555 D5C2	361K75C5	RECTIFIER,SI.ERB44-C6V1	1
△D6C3 △D6C6	36107174	RECTIFIER,SI. RU1F	2
△D651	361073C5	DIODE RU2F	1
△D5C1	361075C9	DIODE RH4F	1
△D652	36107511	RECTIFIER,SI. RL4Z,LFK2	1
△D657	36107512	RECTIFIER,SI. RG4C,LFK2	1
FD8C2	36108092	DIODE ARRAY 1S2473X9A	1
FD8C1	36108093	DIODE 1S2473X9K	1
△D6C1	36108201	DIODE,NETWORK DSSBA6CS	1
D1	36801023	DIODE,LIGHT-E SEL1320G	1
△D2CC2 △D2CC5	38005011	VARISTER,VD1220	2
△TH6C1	38112031	THERMISTOR,POSITIVE	1
△PC6C1 △PC6C2	382CC233	IC TLP634(NHE-LF2)	2

*** TRANSFORMERS ***

T5C1	45803008	TRANS,H.DRIVE	1
T5C3	46305101	TRANS,CONVERTER	1
△T6C1	46306407	TRANS,SWITCHING	1
△T602	46306408	TRANS,SWITCHING	1

SYMBOL	PARTS NO	DESCRIPTION	QTY
△T5C2	47105640	F.B.T	1
△T4C1	47502C42	TRANS,SIDE PINCUSHION	1

*** VARIABLE RESISTORS ***

VR4			41011270	R,VARIABLE B500-V(M)	1
VR3			41011273	R,VARIABLE B20K-V(M)	1
VR5			41011275	R,VARIABLE B20K-V(M)	1
VR1	VR2		41023603	R,VARIABLE B10K-V	2
VR4C3			41061C09	R,VARIABLE B47K	1
VR4C2			41067C03	R,VARIABLE 300H C.1W	1
VR5E1			41067C05	R,VARIABLE 1K C.1W	1
VR4C1	VR501		41067C08	R,VARIABLE 5K	2
VR8C1	VR802	VR8C3	41071161	R,VARIABLE B4.7K	3
VR7C2			41071163	R,VARIABLE B10K	1
VR7C1			41071215	R,VARIABLE B22K	1
VR4C5			41085C04	R,VARIABLE B5C0H	1
VR5C1			41085C08	R,VARIABLE B5K	1
VR551			41085C09	R,VARIABLE B10K	1
VR451	VR552	VR553	41085C10	R,VARIABLE B20K	5
VR554	VR555				
VR9C7			41085C11	R,VARIABLE B3CK	1
VR9C1	VR9C2	VR9C3	41085C13	R,VARIABLE B1C0K	6
VR9C4	VR9C5	VR9C6			
VR5C2			41085C14	R,VARIABLE B2C0K	1
△VR651			41087C55	R,VARIABLE B5K	1
△VR2CC1 △VR2CC2 △VR652			41505C05	R,VARIABLE B2K	3
△VR2CC3 △VR653			41505C08	R,VARIABLE B1CK	2

*** RELAYS & SWITCHES ***

SW3		65161C21	SWITCH,SLIDE	1
SW8C3		65161C2C	SWITCH,SLIDE	1
SW1	SW2	65161C34	SWITCH,SLIDE	2
SW8C1	SW802	65161C35	SWITCH,SLIDE	2
△SW1		6536CC06	SWITCH,PUSH BUTTON	1
△RL1		656025C1	RELAY G6B-1114P	1
RL8C2		65602551	RELAY	1
RL8C1	RL803	65699C12	RELAY RY120W (2T)	2

*** COILS & FILTERS ***

LC7C2	39099C15	FILTER ZJSC-2R2-1C1	1
△L503	60908047	COIL,WIDTH	1
L505	60908062	COIL	1
△L5C6	6C9181C1	COIL,H.LIN	1

SYMBOL	PARTS NO	DESCRIPTION	QTY
△L5C7	6C999C04	COIL,CHOKE	1
L7C1 L7C2 L7C3 L9C1 L9C2 L9C3	61CE1711	COIL,FILTER 3.3UH	6
L7C4 L7C5 L7C6	61CE1712	COIL,FILTER 3.9UH	3
L8C1 L8C2	61CE1714	COIL,FILTER 5.6UH	2
L5C2	61CF7C10	COIL,FILTER 2.7UH	1
L5C2	61C22CE2	FILTER CHOKE	1
△L6C1	61062C40	LINE FILTER (12MH-1.3A)	1
	61062C57	LINE FILTER GL-2C30F	1
L5C1 L5D1	61064C06	COIL,FILTER 50UH	2
△L6C2 △L651 △L657	61C99C11	COIL,CHOKE 33UH	3
△L652	61C99C14	COIL 33CK1.8	1
L5C3 L5C5	61C99C19	COIL,CHOKE	2
△	6131421C	COIL,DEGAUSSING	1
LC7C1	61606C21	NOISE FILTER DSS-271M	1
LC8C1	61606C23	FILTER DSS-223S	1

*** PWB ASSYS ***

	84K1CCC4	INPUT PWB ASSY	1
	84K29AC1	SW.REG.PWB ASSY	1
	84K29DC1	DEF PWB ASSY	1
	84K29JC1	CRT PWB ASSY	1
	84K29KC1	INTERFACE PWB ASSY	1

*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***

	31709201	INSULATOR SHEET	1
HS-4C2	31709202	SHEET,INSULATOR	1
HS-5C2	31709503	SHEET,INSULATOR	1
	32500028	ADAPTER (9P-15P)	1
SG9C1 SG9C2 SG9C3	32990C47	ARRESTER	3
△F6C1 △F651	66699CC7	FUSE ET T2A,250V-S,S SOC	2
SG9C5	66706CC1	SPARK GAP 1.2KV	1
△	70032026	SG/CRT SOCKET	1
	70102147	IC SOCKET 24P	1
△	70800031	LINE CORD	1
	71205C37	HOLDER,FUSE	4
CN-RH CN-RH1 CN-RH2 CN-RH3	73721C07	CONNECTOR PIN 2P	5
	73893C29	CABLE 9P-9P	1
	70056358	D SUB CONNECTOR 9PL	1

*** APPEARANCE PARTS ***

	24514792	COIL SPRING	1
	25307972	CABINET BACK	1
	25402441	REVOLVING STAND T	1
	25308811	CABINET, FRONT	1

SYMBOL	PARTS NO	DESCRIPTION	QTY
	25405971	REVOLVING STAND(B) ASSY	1
	25407381	CONTROL LID ASSY	1
	25766741	NAME PLATE,INSTRUCTION	1

*** KNOBS & PUSH BUTTONS ***

	25451881	KNOB,CONTROL	2
	25452301	PUSH BUTTON	1

*** PRINTED & PACKING MATERIALS ***

	24806961	BAG,POLYETHYLENE(270*370)	1
	24813191	BAG,POLYETHYLENE(150*370)	1
	25280161	GUIDE RAIL	1
	25601551	CUSHION SHEET	4
	25603511	BARRIER (SW.REG.PWB)	1
	25605021	CUSHION SHEET	2
	25605361	PLATE,SHIELDING	1
	25804991	BAG,POLYETHYLENE	1
	25813912	FILLER(L),CARTON	1
	25813922	FILLER(R),CARTON	1
	599910271	CIRCUIT DESCRIPTION	1
	25815081	CARTON BOX	1
	78046231	PTE CARD	1
	78120214	INSTRUCTION BOOK	1
	78034401	MONITOR SALES OFFICE LIST	1
	599910266	SERVICE MANUAL	1

*** RESISTORS ***

R581			4C1C6637	R,CARBON 33M 5% 1/4W	1
R503			4C1C6667	R,CARBON 560M 5% 1/4W	1
R501	△R602	△R608	4C1C6673	R,CARBON 1.0K 5% 1/4W	6
△R611	△R619	△R663			
△R609	△R620		4C1C6675	R,CARBON 1.2K 5% 1/4W	2
△R662			4C1C6679	R,CARBON 1.8K 5% 1/4W	1
R5E2			4C1C6681	R,CARBON 2.2K 5% 1/4W	1
R527	△R631		4C1C6683	R,CARBON 2.7K 5% 1/4W	2
R5A2	R598	R599	4C1C6685	R,CARBON 3.3K 5% 1/4W	6
△R628	△R633	△R656			
R490	△R636	△R655	4C1C6691	R,CARBON 5.6K 5% 1/4W	4
△R666					
R585			4C1C6693	R,CARBON 6.8K 5% 1/4W	1
R467			4C1C67C1	R,CARBON 15K 5% 1/4W	1
R448			4C1C67C3	R,CARBON 18K 5% 1/4W	1
△R664			4C1C67C5	R,CARBON 22K 5% 1/4W	1
△R627			4C1C67C7	R,CARBON 27K 5% 1/4W	1
R482	R488		4C1C6721	R,CARBON 100K 5% 1/4W	2
△R657			4C1C6723	R,CARBON 120K 5% 1/4W	1

SYMBOL			PARTS NO	DESCRIPTION	QTY
R473			4C1C6757	R,CARBON 3.3M 5% 1/4W	1
R472	R5A6	R574	4C1C6761	R,CARBON 4.7M 5% 1/4W	5
R57E	R582				
R51C			4C1H5623	R,CARBON 6.2H 5% 1/2W	1
R451			4C1H5646	R,CARBON 75H 5% 1/2W	1
R904	R9C5	R9C6	4C1H5649	R,CARBON 100H 5% 1/2W	3
R7C4E	R7C4G	R7C4R	4C1H5651	R,CARBON 120H 5% 1/2W	3
R823			4C1H5655	R,CARBON 180H 5% 1/2W	1
R828			4C1H5661	R,CARBON 330H 5% 1/2W	1
R45C			4C1H5663	R,CARBON 390H 5% 1/2W	1
R526			4C1H5669	R,CARBON 680H 5% 1/2W	1
R4A1	R4B4		4C1H5673	R,CARBON 1.0K 5% 1/2W	2
R582	R583		4C1H5683	R,CARBON 2.7K 5% 1/2W	2
R5C9	R936		4C1H5689	R,CARBON 4.7K 5% 1/2W	2
△R6C5	△R6C6		4C1H5735	R,CARBON 39CK 5% 1/2W	2
△R6C3			4C1H5743	R,CARBON 82CK 5% 1/2W	1
△R618			4C1H5753	R,CARBON 2.2M 5% 1/2W	1
R71C	R815		4C1K5625	R,CARBON 10H 5% 1/6W	2
R7D2E	R7D2G	R7D2R	4C1K5647	R,CARBON 82H 5% 1/6W	6
R7D5E	R7D5G	R7D5R			
R413	R5C3		4C1K5649	R,CARBON 100H 5% 1/6W	2
R414			4C1K5651	R,CARBON 120H 5% 1/6W	1
R724	R853		4C1K5657	R,CARBON 220H 5% 1/6W	2
R8C7G			4C1K5659	R,CARBON 270H 5% 1/6W	1
R935			4C1K5661	R,CARBON 330H 5% 1/6W	1
R5CE	R817E	R817G	4C1K5665	R,CARBON 470H 5% 1/6W	4
R817R					
R417H	R496	R567	4C1K5667	R,CARBON 560H 5% 1/6W	6
R7D1E	R7D1G	R7D1R			
R712	R8C7E		4C1K5669	R,CARBON 680H 5% 1/6W	2
R4AE	R4E3	R423	4C1K5673	R,CARBON 1.0K 5% 1/6W	20
R5C2	R5C7	R534			
R536	R720	R721			
R722	R832	R833			
R834	R835	R836			
R837	R901	R9C2			
R9C3	R934				
R827			4C1K5675	R,CARBON 1.2K 5% 1/6W	1
R495	R516	R711	4C1K5677	R,CARBON 1.5K 5% 1/6W	11
R8C1E	R8C1G	R8C1R			
R8C2E	R8C2G	R8C2R			
R895	R896				
△R2CC2	R447		4C1K5679	R,CARBON 1.8K 5% 1/6W	2
R2	R4A7	R436	4C1K5681	R,CARBON 2.2K 5% 1/6W	26
R456	R457	R458			
R5E3	R529	R814			
R852	R854	R857			
R858	R860	R861			
R862	R867	R873			

SYMBOL			PARTS NO	DESCRIPTION	QTY
R874	R884	R885	4C1K5681	R,CARBON 2.2K 5% 1/6W	26
R886	R888	R890			
R893	R931				
△R2CC3	R411	R718	4C1K5683	R,CARBON 2.7K 5% 1/6W	6
R723	R863	R881			
△R2CC5	△R2CC9	R437	4C1K5685	R,CARBON 3.3K 5% 1/6W	12
R494	R584	R726			
R812E	R812G	R812R			
R856	R870	R922			
R439	R522	R533	4C1K5687	R,CARBON 3.9K 5% 1/6W	4
R557					
R403	R415	R424	4C1K5689	R,CARBON 4.7K 5% 1/6W	6
R551	R8C8B	R8C8G			
R8CER	R879				
R1	R5B0	R5E5	4C1K5691	R,CARBON 5.6K 5% 1/6W	10
R5C2	R826	R865			
R866	R872	R883			
R929					
R402	R484	R515	4C1K5693	R,CARBON 6.8K 5% 1/6W	7
R7C3E	R7C3G	R7C3R			
R825					
△R2CC4	△R2CCE	R4C1	4C1K5695	R,CARBON 8.2K 5% 1/6W	11
R5C6	R5C6	R552			
R709	R715	R868			
R869	R875				
△R2CCG	△R2C1C	R4E8	4C1K5697	R,CARBON 10K 5% 1/6W	21
R412	R452	R457			
R455	R504	R553			
R555	R556	R563			
R595	R725	R813			
R816	R838	R851			
R871	R891	R897			
△R2C11	R4C0	R4A9	4C1K5699	R,CARBON 12K 5% 1/6W	11
R514	R587	R713			
R714	R864	R877			
R882	R921				
R4B1	R4B2	R4E6	4C1K57C1	R,CARBON 15K 5% 1/6W	19
R4B7	R416	R472			
R477	R5A7	R573			
R577	R581	R589			
R592	R717	R8C9E			
R8C9G	R8C9R	R859			
R92C					
R4A6	R430	R431	4C1K57C5	R,CARBON 22K 5% 1/6W	10
R434	R438	R5C5			
R559	R597	R87E			
R892					
R558	R716		4C1K57C7	R,CARBON 27K 5% 1/6W	2
R427	R596	R917	4C1K57C9	R,CARBON 33K 5% 1/6W	8
R918	R919	R923			
R924	R925				
△R2C12			4C1K5711	R,CARBON 39K 5% 1/6W	1

SYMBOL			PARTS NO	DESCRIPTION	QTY
R42C	R454	R485	401K5713	R,CARBON 47K 5% 1/6W	7
R486	R487	R887			
R889					
R594	R855		401K5715	R,CARBON 56K 5% 1/6W	2
R432	R926	R927	401K5717	R,CARBON 68K 5% 1/6W	4
R928					
R5A9	R850		401K5719	R,CARBON 82K 5% 1/6W	2
R429	R479	R480	401K5721	R,CARBON 100K 5% 1/6W	11
R481	R483	R489			
R5A8	R590	R829			
R83C	R831				
R485	R419	R457	401K5727	R,CARBON 180K 5% 1/6W	7
R49F	R914	R915			
R916					
R535	R591	R876	401K5729	R,CARBON 220K 5% 1/6W	6
R9C8	R9C9	R910			
R911	R912	R913	401K5731	R,CARBON 270K 5% 1/6W	3
R593			401K5739	R,CARBON 560K 5% 1/6W	1
R518			401K5745	R,CARBON 1.0M 5% 1/6W	1
R468			401K5753	R,CARBON 2.2M 5% 1/6W	1
R5C4			4017510G	R,CARBON 2.2M 5% 1/4W	1
△R42E			40175133	R,CARBON 22M 5% 1/4W	1
△R7C7E	△R7C7C	△R7C7R	40175141	R,CARBON 47M 5% 1/4W	6
△R7C8E	△R7C8G	△R7C8R			
△R63C	△R632	△R634	40175143	R,CARBON 56M 5% 1/4W	3
△R62E	△R671		40175157	R,CARBON 220M 5% 1/4W	2
△R658			40175161	R,CARBON 330M 5% 1/4W	1
△R612	△R614		40175183	R,CARBON 2.7K 5% 1/4W	2
△R661			40175185	R,CARBON 3.3K 5% 1/4W	1
△R623			40175189	R,CARBON 4.7K 5% 1/4W	1
△R5C9			40178117	R,CARBON 4.7M 5% 1/2W	1
△R6C1			40299107	R,WIRE 15M 10% 5W	1
R7C6E	R7C6C	R7C6R	40318179	R,METAL 1.8K 5% 5W	3
R5C8			40371135	R,METAL 27M 5% 1W	1
△R667			40371137	R,METAL 33M 5% 1W	1
R5C7			40371143	R,METAL 56M 5% 1W	1
R44C			40371149	R,METAL 100M 5% 1W	1
R824			40371161	R,METAL 330M 5% 1W	1
R433			40371165	R,METAL 470M 5% 1W	1
R537			40371169	R,METAL 680M 5% 1W	1
R435			40372103	R,METAL 1.2M 5% 2W	1
△R615	△R624		40372107	R,METAL 1.8M 5% 2W	2
△R613			40372143	R,METAL 56M 5% 2W	1
△R622			40372145	R,METAL 68M 5% 2W	1
△R669			40372147	R,METAL 82M 5% 2W	1
△R616	△R625		40372149	R,METAL 100M 5% 2W	2
R42E			40372157	R,METAL 220M 5% 2W	1
R53C			40372161	R,METAL 330M 5% 2W	1

SYMBOL			PARTS NO	DESCRIPTION	QTY
R493			40372163	R,METAL 390M 5% 2W	1
R517			40372185	R,METAL 3.3K 5% 2W	1
△R652			40372203	R,METAL 18K 5% 2W	1
△R654			40372205	R,METAL 22K 5% 2W	1
△R665			40372217	R,METAL 68K 5% 2W	1
R511			40373163	R,METAL 390M 5% 3W	1
R512			40373165	R,METAL 470M 5% 3W	1
△R61C			40373181	R,METAL 2.2K 5% 3W	1
△R653			40373195	R,METAL 8.2K 5% 3W	1
△R66C			40373197	R,METAL 10K 5% 3W	1
△R659	△R670		40373203	R,METAL 18K 5% 3W	2
△R617	△R629		40373221	R,METAL 100K 5% 3W	2
△R604			40399034	R,METAL 2.2K 5% 2W	1
R811E	R811G	R811R	404C1646	R,METAL 75M 1% 1/6W	3
R81CE	R810G	R810R	404C1653	R,METAL 150M 1% 1/6W	3
R82C			404C1657	R,METAL 220M 1% 1/6W	1
R804E	R8C4G	R8C4R	404C1661	R,METAL 330M 1% 1/6W	6
R8C6E	R8C6G	R8C6R			
R8C3E	R8C3G	R8C3R	404C1669	R,METAL 680M 1% 1/6W	6
R8C5E	R8C5G	R8C5R			
R417I			404C1677	R,METAL 1.5K 1% 1/6W	1
R417G	R422		404C1681	R,METAL 2.2K 1% 1/6W	2
R41E			404C1683	R,METAL 2.7K 1% 1/6W	1
R417	R421		404C1687	R,METAL 3.9K 1% 1/6W	2
R404	R822		404C1691	R,METAL 5.6K 1% 1/6W	2
R417C	R5E4		404C1694	R,METAL 7.5K 1% 1/6W	2
R821			404C1695	R,METAL 8.2K 1% 1/6W	1
R461	R818E	R818G	404C1697	R,METAL 10K 1% 1/6W	7
R818R	R819E	R819G			
R819R					
R417D	R562		404C1699	R,METAL 12K 1% 1/6W	2
R4A2	R4A4	R4C5	404C17C1	R,METAL 15K 1% 1/6W	5
R417A	R417E				
R561			404C17C4	R,METAL 20K 1% 1/6W	1
R41C			404C17C7	R,METAL 27K 1% 1/6W	1
R4C7	R532		404C1711	R,METAL 39K 1% 1/6W	2
R417E	R531	R56F	404C1717	R,METAL 68K 1% 1/6W	3
R464			404C1719	R,METAL 82K 1% 1/6W	1
R4CE	R564	R565	404C1721	R,METAL 100K 1% 1/6W	4
R566					
R409	R46D	R466	404C1723	R,METAL 120K 1% 1/6W	8
R57C	R571	R572			
R575	R579				
R5A5			404C1725	R,METAL 150K 1% 1/6W	1
R469			404C1727	R,METAL 180K 1% 1/6W	1
R4A9	R459	R5A4	404C1728	R,METAL 200K 1% 1/6W	4
R576					

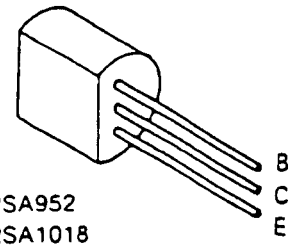
SYMBOL			PARTS NO	DESCRIPTION	QTY
R4C8	R474		404C1729	R/METAL 22CK 1% 1/6W	2
R58C			404C1731	R/METAL 27CK 1% 1/6W	1
R569			404C1737	R/METAL 47CK 1% 1/6W	1
R462			404C1739	R/METAL 56CK 1% 1/6W	1
R476			404K2717	R/METAL 68K 1% 1/4W	1
R471			404K2723	R/METAL 120K 1% 1/4W	1
△R2CC1	△R2C07	△R5C5	4C4051C9	R/METAL 2.2M 5% 1/4W	4
△R513					
R5E1			404C5117	R/METAL 4.7M 5% 1/4W	1
△R5C1			40812649	R/FUSE 100M 5% 1/2W	1
△R524			40812661	R/FUSE 330M 5% 1/2W	1
△R525	△R528		40812665	R/FUSE 470M 5% 1/2W	2

*** CAPACITORS ***

C867			420C9519	C/CERAMIC 5CV 330CPF	1
△C51E			420C9557	C/CERAMIC 5C0V 330UF	1
C511	△C517	△C519	420C9560	C/CERAMIC 5CCV 560PF	3
C512	C912	C913	420C9563	C/CERAMIC 5C0V 0.001UF	4
C914					
C9C5	C9C6	C9C7	420C95E7	C/CERAMIC 5C0V 220CPF	4
C9C8					
C512			4201J575	C/CERAMIC 5CCV C.01UF	1
C911			42C19175	C/CERAMIC 2KV C.01UF	1
C521	△C626		4203J554	C/CERAMIC 5C0V 180PF	2
C71C	C711	C712	4203J575	C/CERAMIC 5C0V C.01UF	3
△C6C3	△C604		42053C13	C/CERAMIC 4CCV 1000PF	2
△C6C6			42053C67	C/CERAMIC 4CCV 220CPF	1
△C663			42099C82	C/CERAMIC 2KV 150CPF	1
△C622	△C623	△C624	42099C85	C/CERAMIC 2KV 560PF	4
△C625					
△C612	△C618		42099C8E	C/CERAMIC 2KV 22CPF	2
C453	C454	C554	421A0425	C/CERAMIC 5CV 0.01UF	11
C564	C567	△C571			
C809E	C8C9G	C8C9P			
C817	C818				
C855	C866		421C0213	C/CERAMIC 5CV 1000PF	2
C854			421C0215	C/CERAMIC 5CV 1500PF	1
C2			421C0225	C/CERAMIC 5CV 0.01UF	1
C414	C510	△C525	421J9CC1	C/CERAMIC 5CV 0.1UF	16
C572	C7C1	C7C2			
C7C3	C717	C8C2			
C8C4	C8C6	C811			
C812	C819	C82C			
C91C					
C9C4	C9C9		421J9C35	C/CERAMIC 16V 0.1UF	2
C41C			423A1C39	C/CERAMIC 5CV 56PF	1
C7C4	C7C5	C7C6	423A1C41	C/CERAMIC 5CV 68PF	3

SYMBOL			PARTS NO	DESCRIPTION	QTY
C561	C565		423A1C53	C/CERAMIC 5CV 220PF	2
C408	C551	C562	423A11C1	C/CERAMIC 5CV 47CPF	4
C566					
C556			423A11C4	C/CERAMIC 5CV 68CPF	1
C856			423A2C27	C/CERAMIC 5CV 18PF	1
C5C3	C552		427A7CC5	C/FILM 1C0V 0.0022UF	2
C5C2			427A7C07	C/FILM 1C0V 0.0033UF	1
C857			427F4C01	C/FILM 5CV 1000PF	1
C452			427F4C25	C/FILM 5CV 0.1UF	1
C4C5			427F4C51	C/FILM 5CV 1C00PF	1
C5C5			427F4C58	C/FILM 5CV 3900PF	1
C425	C451		427F4C59	C/FILM 5CV 4700PF	2
C427			427F4C60	C/FILM 5CV 5600PF	1
C4C9			427F4C64	C/FILM 5CV C.012UF	1
C5C7			427F4C65	C/FILM 5CV C.015UF	1
C5C1	C5C6		427F4C71	C/FILM 5CV C.047UF	2
C715	C852		427F4C75	C/FILM 5CV C.1UF	2
△C515			42703863	C/MYLAR 400V 0.01UF	1
△C575			42703865	C/FILM 400V C.15UF	1
C522			427542E7	C/FILM 2C0V 0.022UF	1
△C628			4276DC17	C/FILM 5CV C.022UF	1
C4C1			4276DC55	C/FILM 5CV 2200PF	1
C4C3			4276DC61	C/FILM 5CV 6800PF	1
△C6CF	△C614		4276DC69	C/FILM 5CV C.033UF	2
△C656			4276DC73	C/FILM 5CV C.068UF	1
△C6C7			4276DC75	C/FILM 5CV C.1UF	1
△C655			4279JC58	C/FILM 1C0V 5600PF	1
△C613	△C619	△C659	42799C99	C/MYLAR 4C0V 0.033UF	3
△C514E			42807519	C/METAL FILM 1.6K 560CPF	1
△C514A			42808591	C/METAL FILM 1.6KV 25C0PF	1
C4C4			4282CC25	C/METAL FILM 50V 1UF	1
△C6C2			42824325	C/FILM 25CV C.1UF	1
△C6C1			42824329	C/FILM 25CV 0.22UF	1
△C661			42840131	C/METAL FILM 25CV C.068UF	1
C9C1	C9C2	C9C3	42899C10	C/METAL FILM 25CV C.22UF	3
△C627			42899C2E	C/METAL FILM 25CV C.1UF	1
△C52C	△C569	△C57C	42899C42	C/METAL FILM 400V C.64UF	3
C4C2			430A41C5	C/ELEC 5CV 1UF	1
C81CE	C81CG	C81CR	430A4107	C/ELEC 5CV 2.2UF	3
C8C7E	C8C7G		430B3C49	C/ELEC 16V 47UF	2
C412			430B3C9C	C/ELEC 35V 1CCUF	1
C413			430B3C91	C ELEC 35V 220UF	1
C7C7	C7C8	C7C9	430B3182	C/ELEC 16CV 1UF	3
△C2CC2	△C2C05	C719	430P6C15	C/ELEC 1CV 47UF	4
C815					
C5C3			43086C1E	C/ELEC 1CV 100UF	1

SYMBOL			PARTS NO	DESCRIPTION	QTY
C5C4	C814		430B6C17	C,ELEC 10V 22UF	2
C5C2			430B6C20	C,ELEC 10V 1000UF	1
C5E2	C8C1	C816	430B6C25	C,ELEC 16V 10UF	7
C858	C8C2	C864			
C868					
C423	C455	C456	430B6C26	C,ELEC 16V 22UF	4
C457					
C713			430B6C27	C,ELEC 16V 33UF	1
C8C3	C8C7R	C8C8B	430B6C28	C,ELEC 16V 47UF	6
C8C8G	C8C8R	C851			
C714	C8C5		430B6C29	C,ELEC 16V 100UF	2
C429	C5C9	C813	430B6C30	C,ELEC 16V 220UF	3
C416	C5C6	C5C7	430B6C31	C,ELEC 16V 330UF	3
C553	C563		430B6C38	C,ELEC 25V 10UF	2
C5E1			430B6C41	C,ELEC 25V 47UF	1
C419	C5C5		430B6C54	C,ELEC 35V 100UF	2
C5C1			430B6C56	C,ELEC 35V 330UF	1
C853	C859	C86C	430B6C62	C,ELEC 5CV 2.2UF	4
C861					
ΔC2CC4			430B6C65	C,ELEC 5CV 10UF	1
C421	C422		430B6C66	C,ELEC 5CV 22UF	2
ΔC2CC1			430B6C6F	C,ELEC 5CV 47UF	1
C523			430B6536	C,ELEC 2CCV 1CUF	1
ΔC66C			4302C101	C*ELEC 5CV C.47UF	1
ΔC653			4302C17C	C,ELEC 1C0V 1CCUF	1
ΔC651			4302C172	C,ELEC 1C0V 330UF	1
ΔC664			4302C1E2	C,ELEC 16CV 1UF	1
C516	ΔC657	ΔC658	4302C190	C,ELEC 16CV 1CCUF	4
ΔC662					
ΔC611	ΔC617		43C2EC51	C,ELEC 16V 22CUF	2
ΔC61C	ΔC616		4302EC53	C,ELEC 5CV 47CUF	2
ΔC654			43C2EC5C	C,ELEC 35V 1CCUF	1
ΔC6C5	ΔC615		4302E1C5	C,ELEC 5CV 4.7UF	2
ΔC62C	ΔC621		4302E1C7	C,ELEC 5CV 22UF	2
C863	C865		4302FC29	C,ELEC 16V 100UF	2
ΔC652			4302JC58	C,ELEC 35V 1000UF	1
C718			43026C32	C,ELEC 16V 47CUF	1
C42C			43C26C73	C,ELEC 5CV 1CCCUF	1
ΔC6C5			431081C5	C,ELEC 4C0V 22CUF	1
C85C			433A3C22	C,ELEC 16V 1CUF	1
C424			433A3C23	C,ELEC 16V 22UF	1
C415			433A3C25	C,ELEC 16V 47UF	1
C716			433A3C43	C,ELEC 35V 4.7UF	1
C428			435A5C53	C,TANTALUM 16V 4.7UF	1
C41E			435A5C55	C,TANTALUM 16V 10UF	1
C5C4			435A5C71	C,TANTALUM 35V 1UF	1
C555	C557		435A8254	C,TANTLM 25V 3.3UF	2



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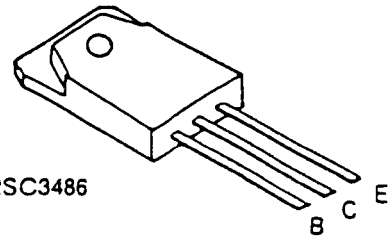

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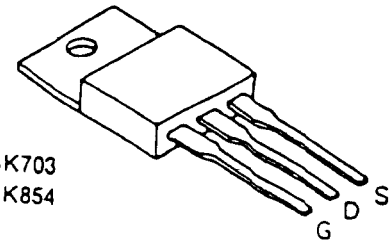

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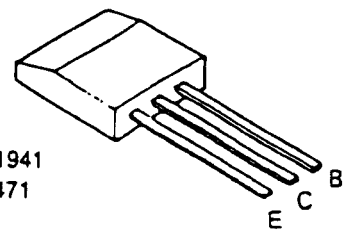

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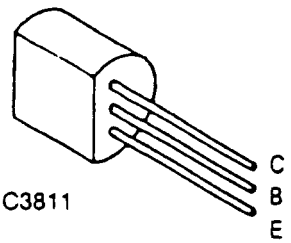

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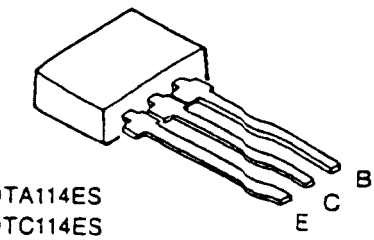

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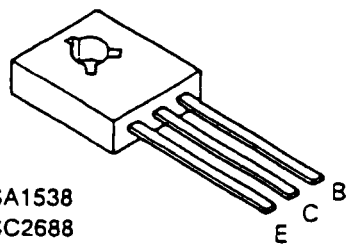

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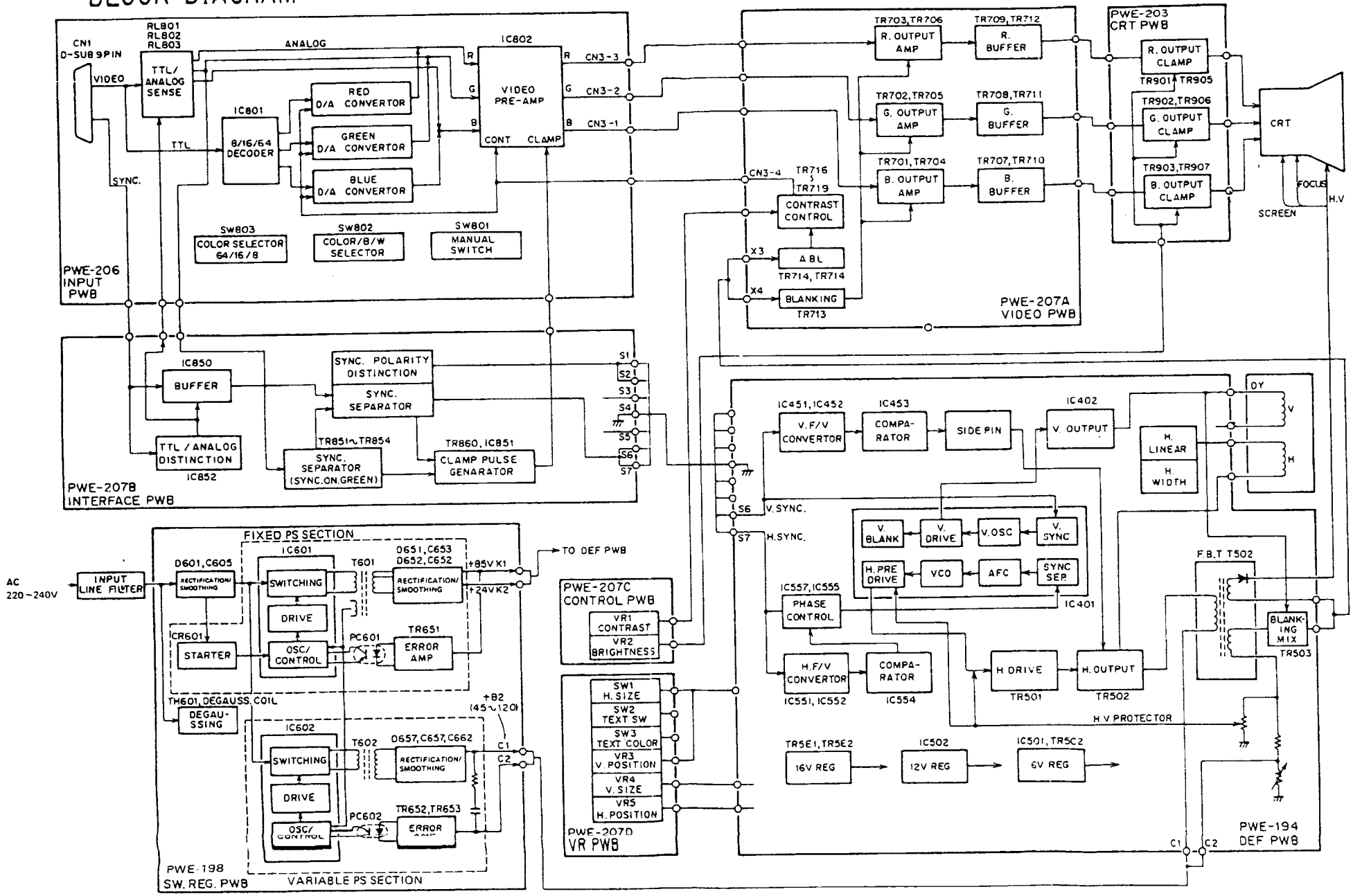
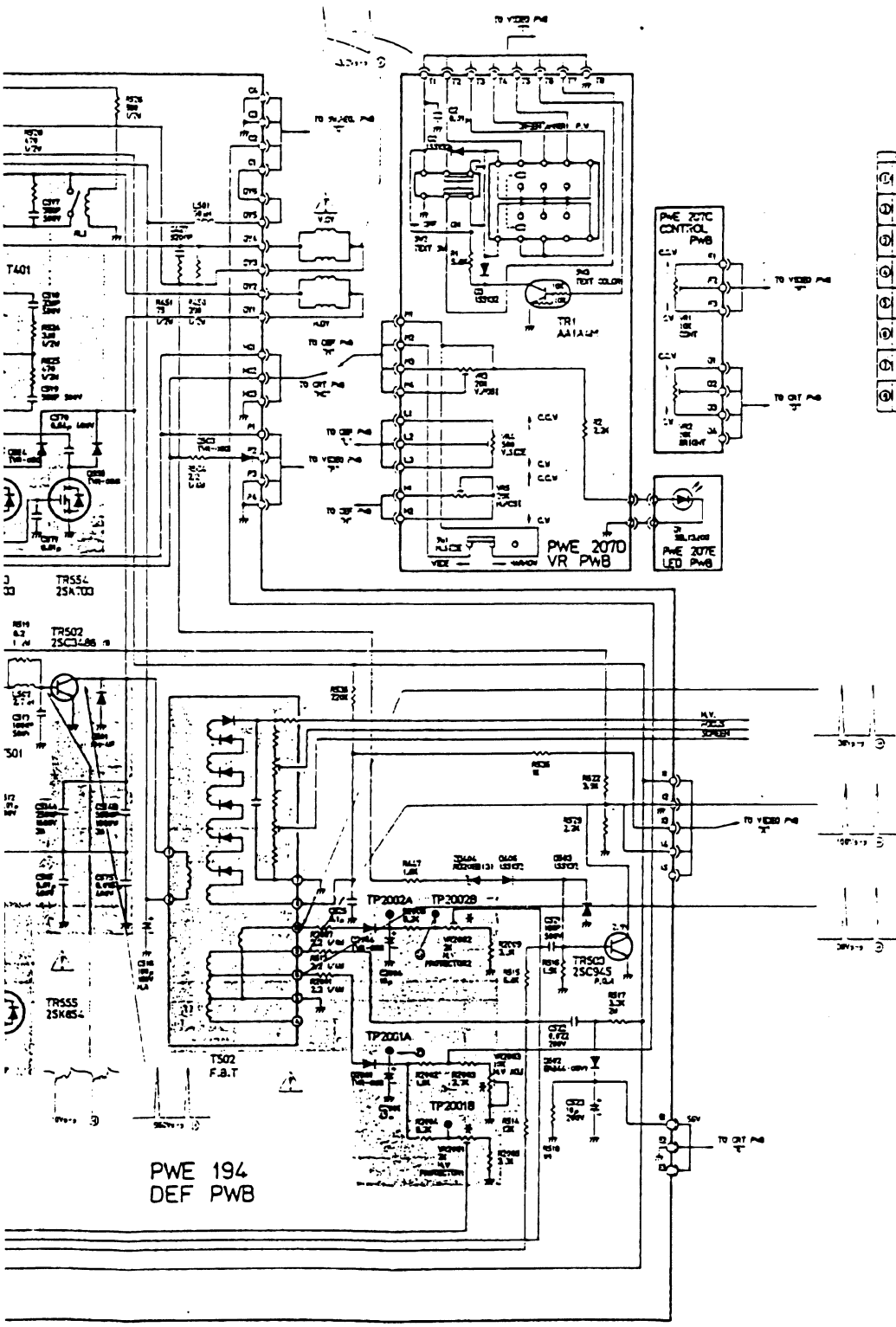
NOTE:

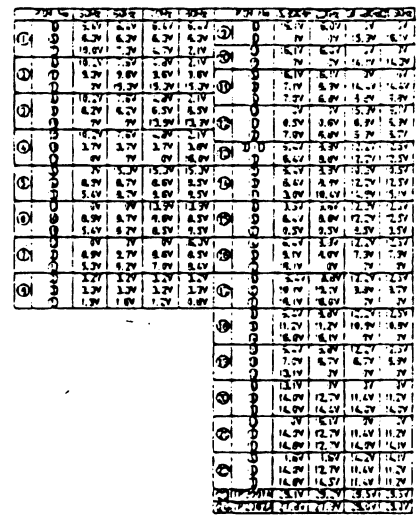
E: EMITTER
B: BASE
C: COLLECTOR
G: GATE
D: DRAIN
S: SOURCE

BLOCK DIAGRAM

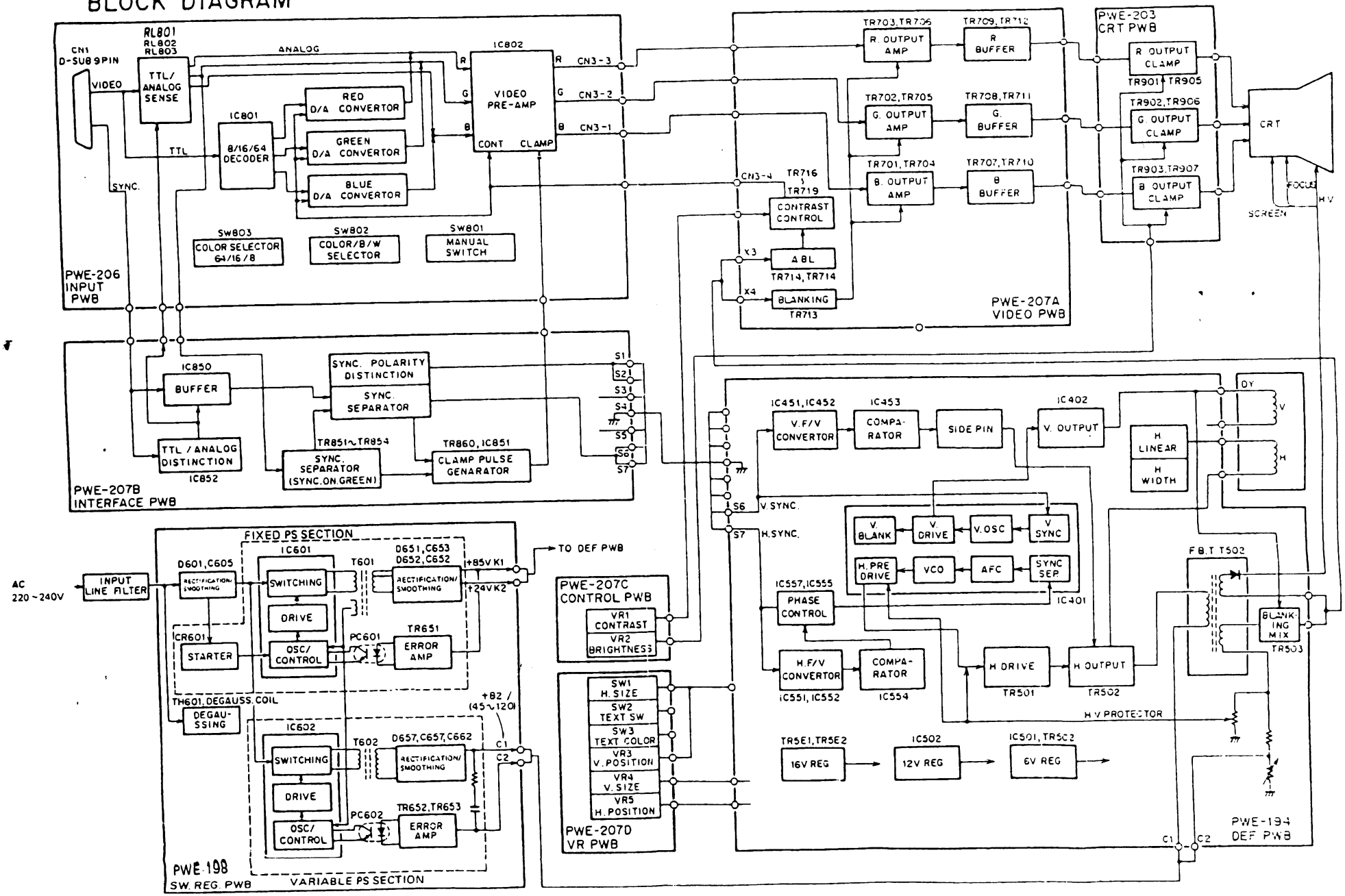


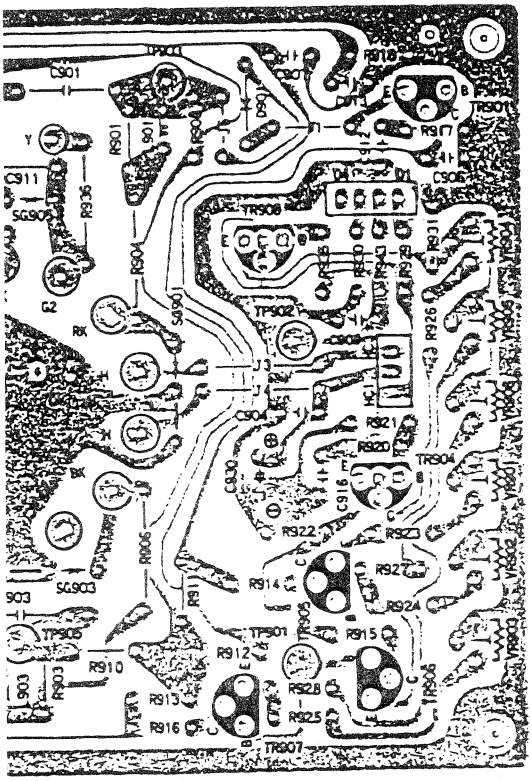

PWE 207C
CONTROL
PWB
PWE 207D
VR PWB
PWE 207E
LED PWB
TP2002A
TP2002B
TP2001A
TP2001B
TS02
F.B.T
PWE 194
DEF PWB

DEF PWB

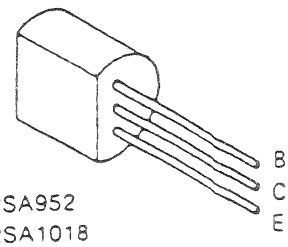


BLOCK DIAGRAM

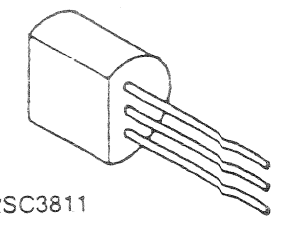




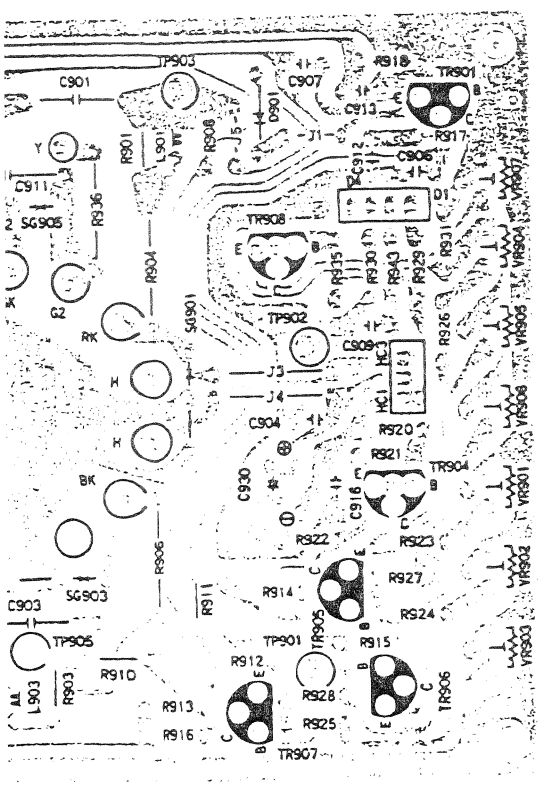
VB ASSY (PWE-203)
-Solder Side—



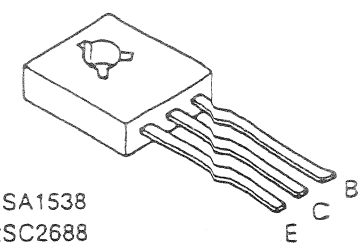
2SA952
2SA1018
2SC945
2SC1473
2SC2002
AA1A4M
AA1L4M
AN1A4M
2SA933
2SC1740



2SC3811



WB ASSY (PWE-231)
-Solder Side—



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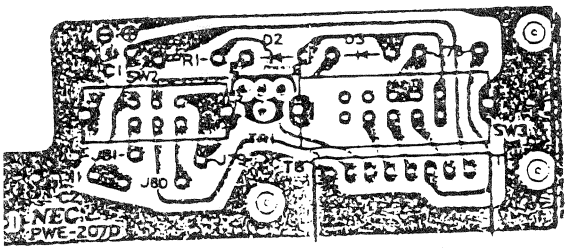
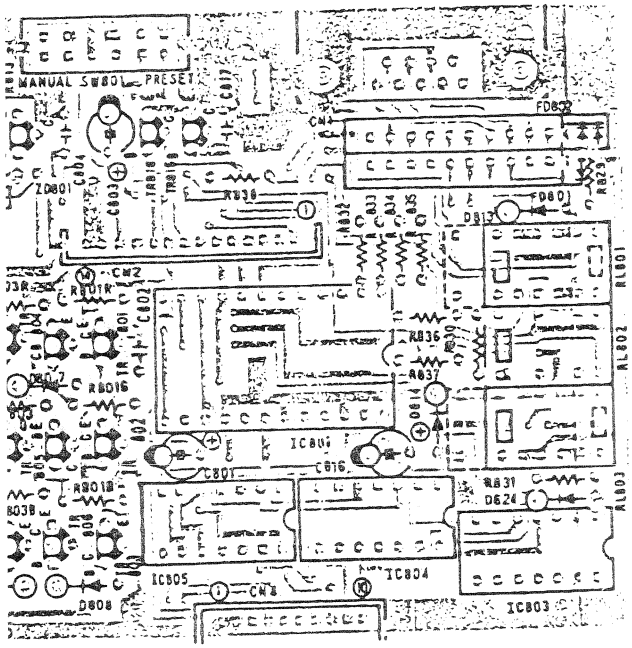
2SC2688
2SC3502
2SC3953



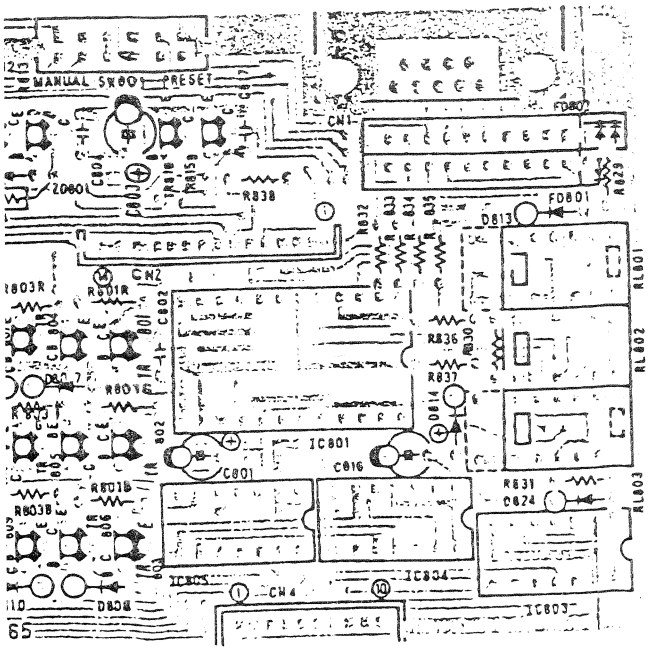
E-207D)

—

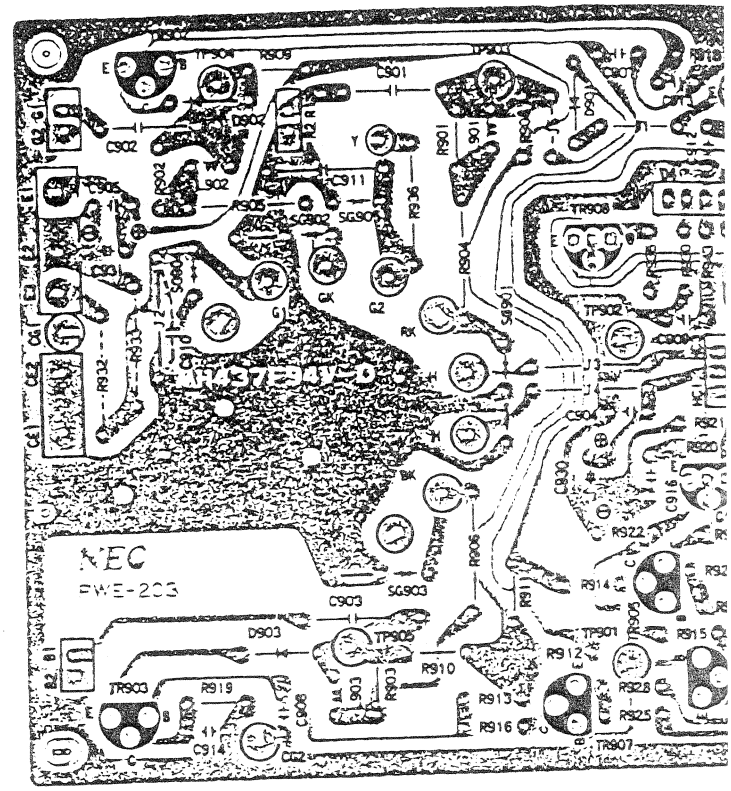


WE-206)

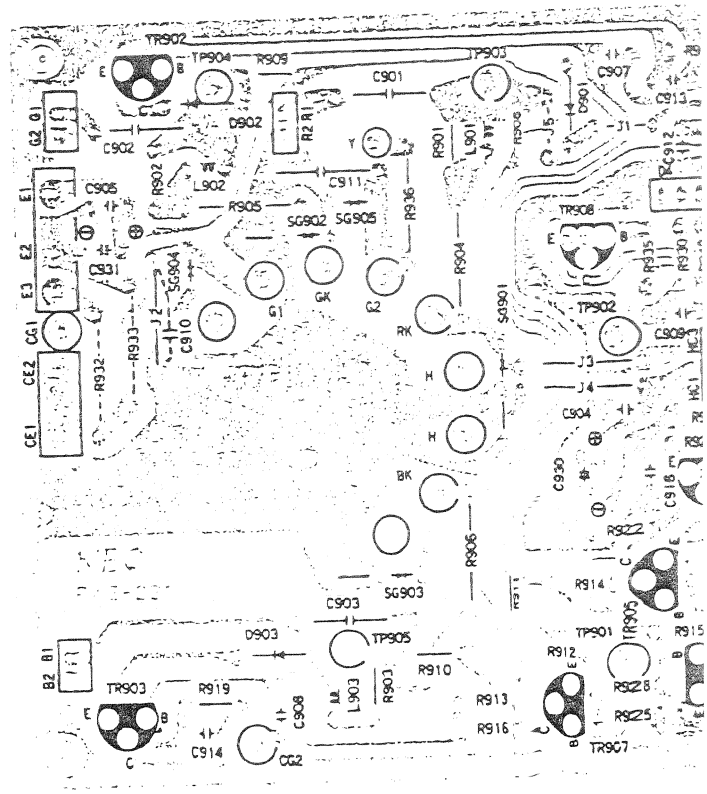
e—



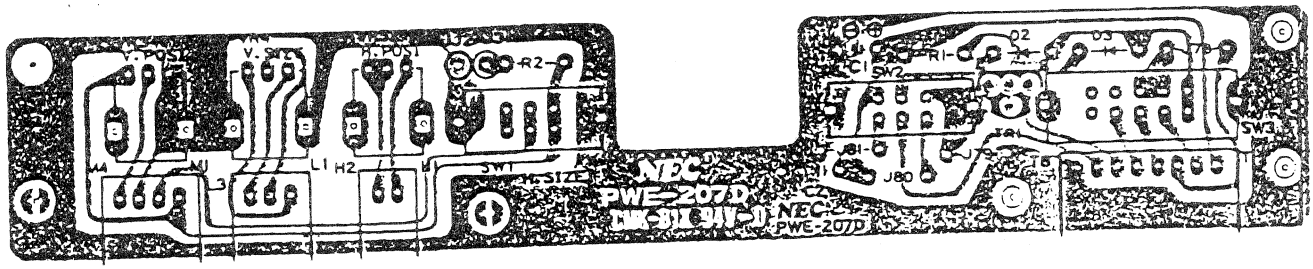
side components



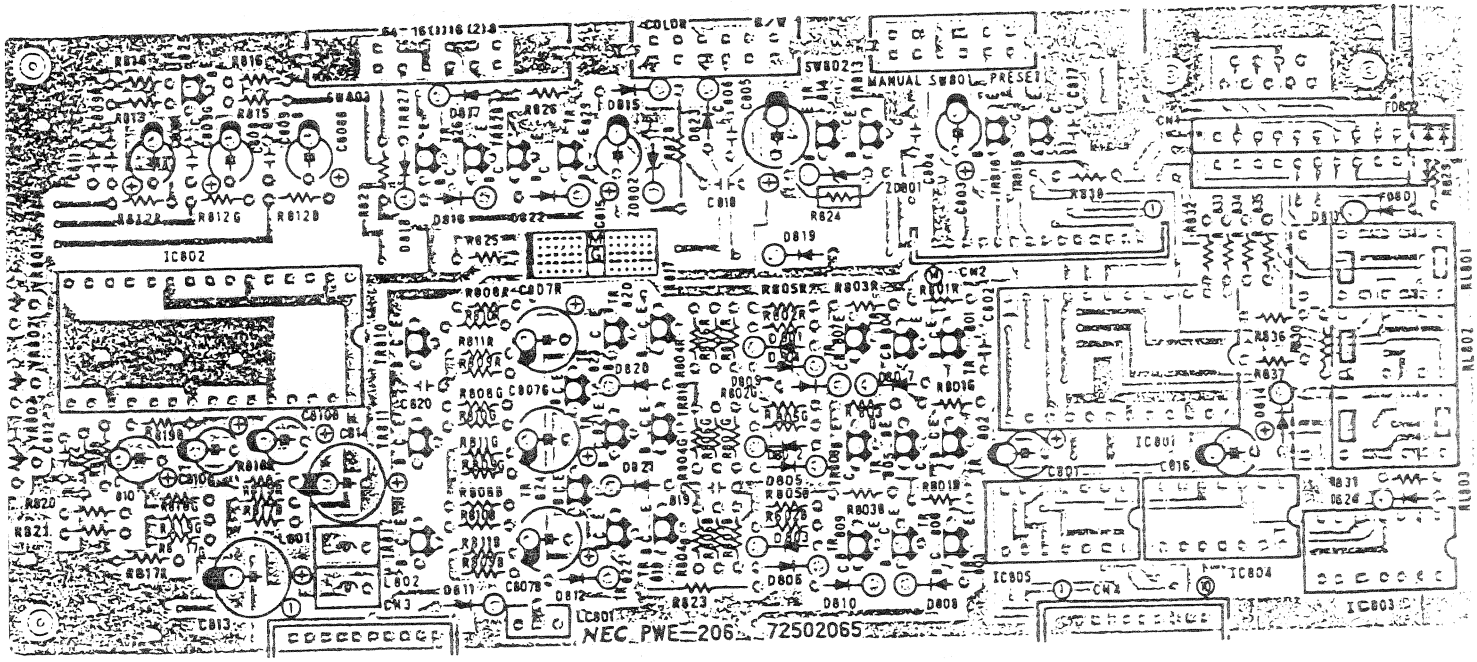
CRT PWB ASSY (PWE-203)
—Solder Side—



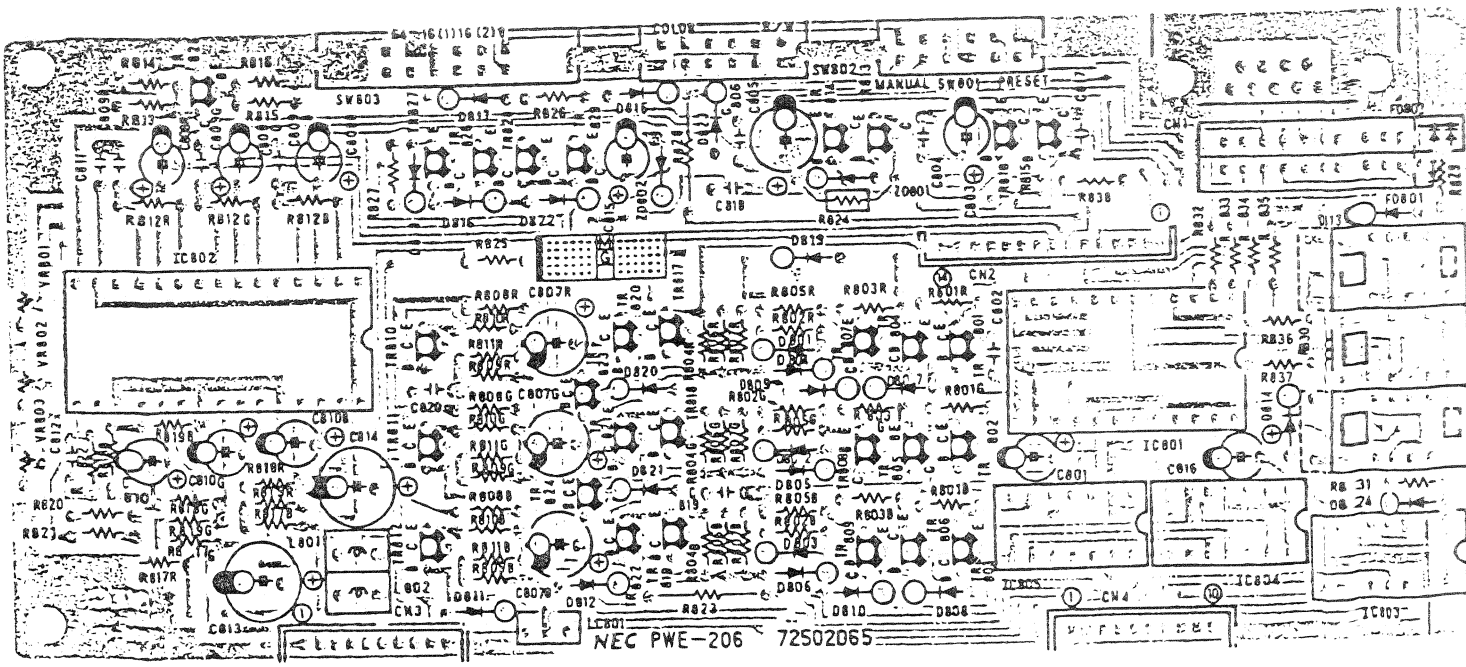
CRT PWB ASSY (PWE-231)
—Solder Side—



VR PWB ASSY (PWE-207D)
—Solder Side—

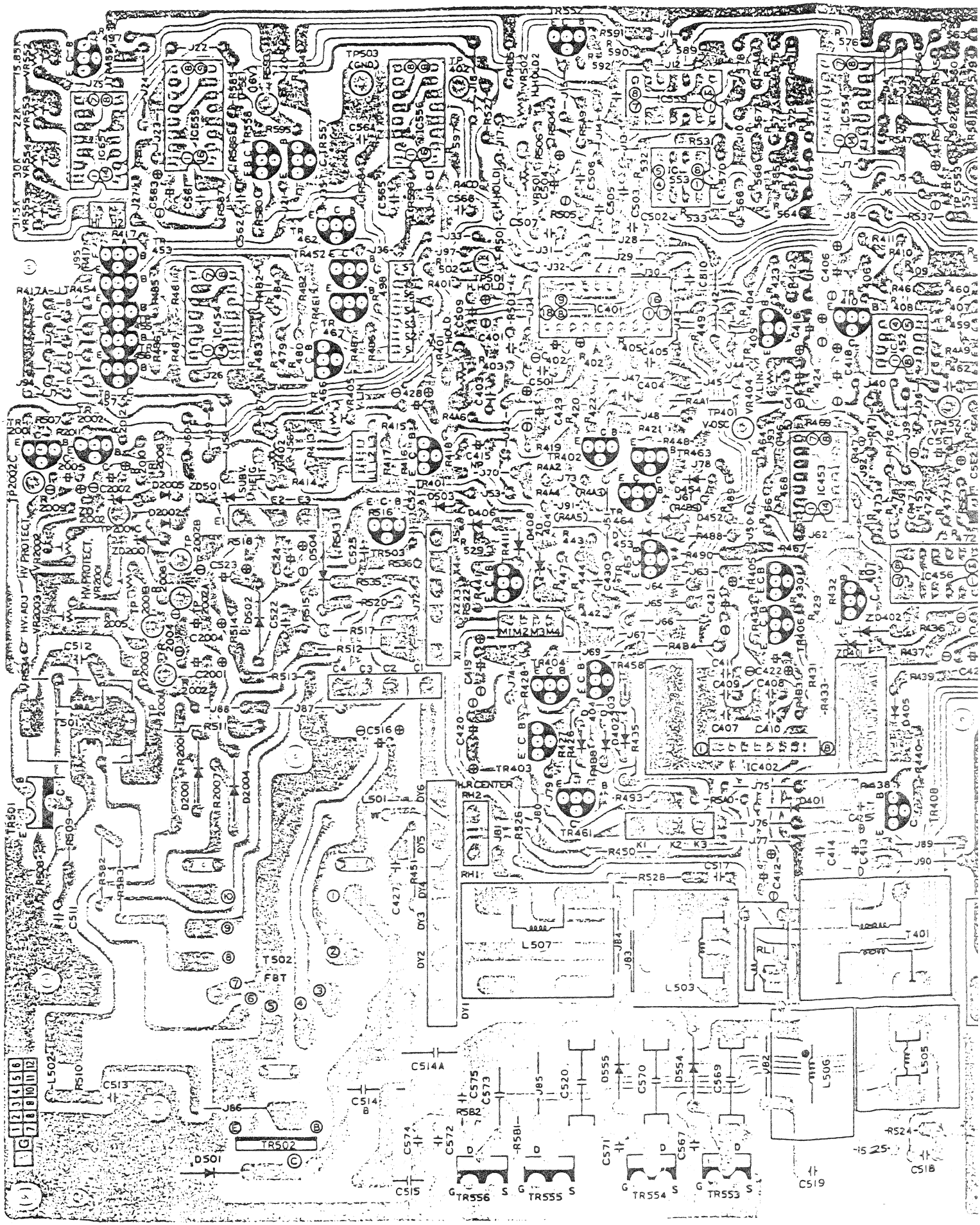


INPUT PWB ASSY (PWE-206)
—Component Side—



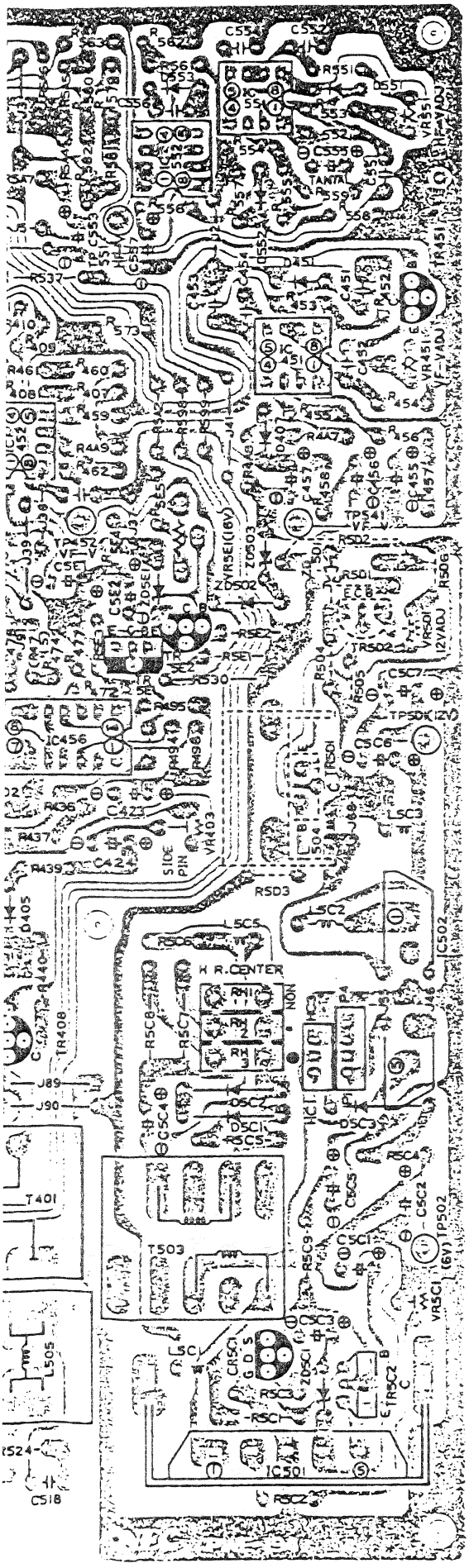
See-through view of reverse-side components

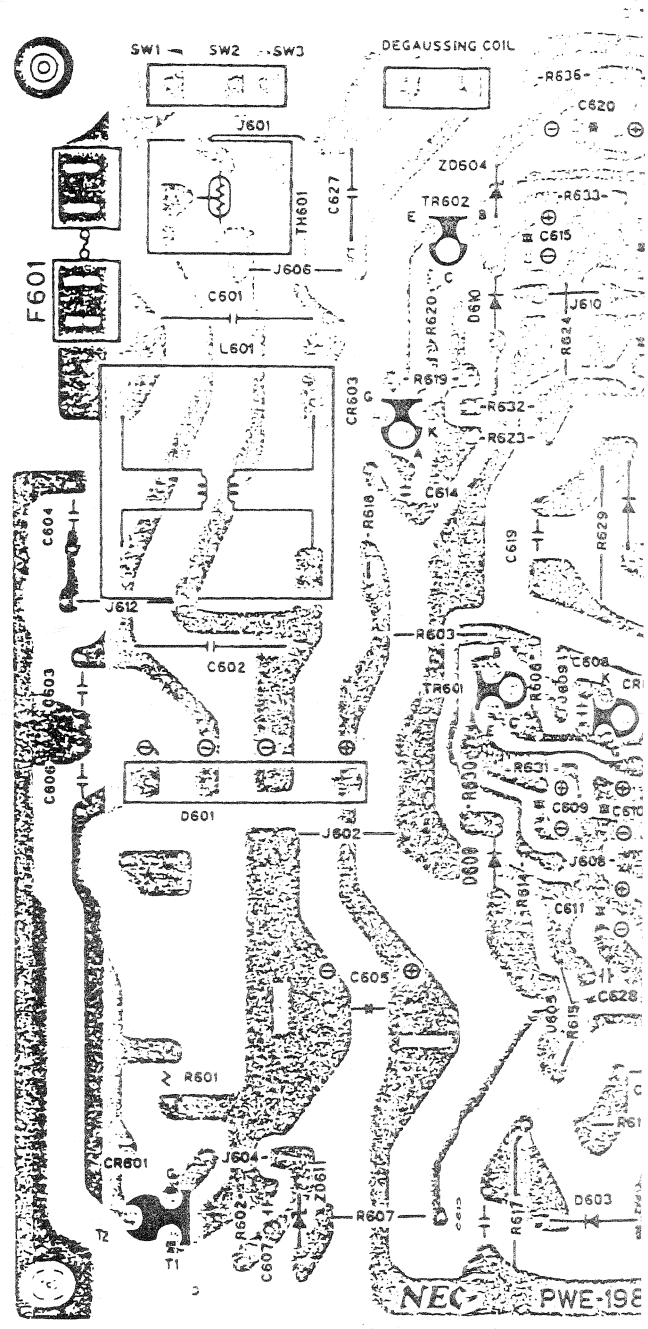
PRINTED WIRING BOARDS



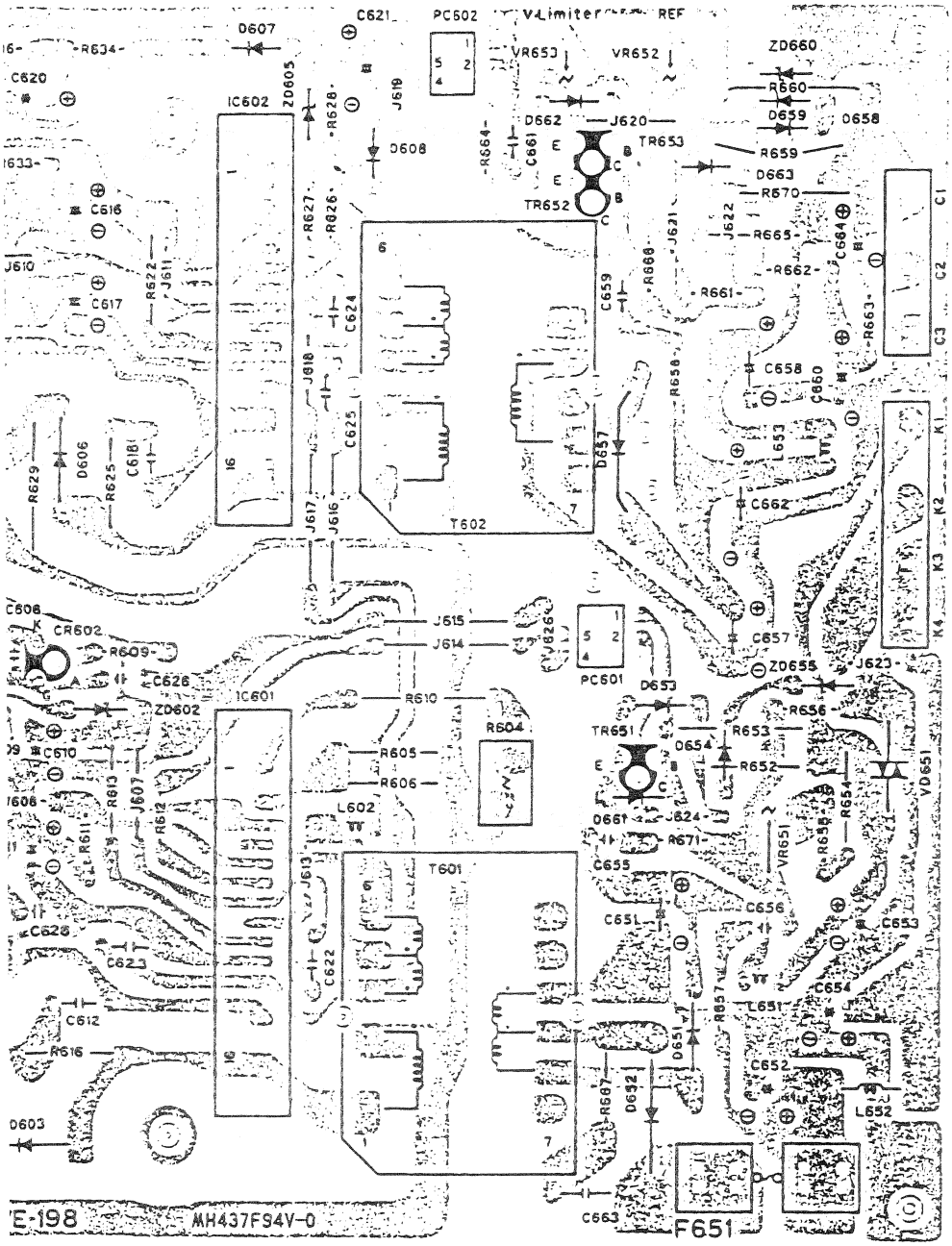
DEFLECTION PWB ASSY (PWE-194)

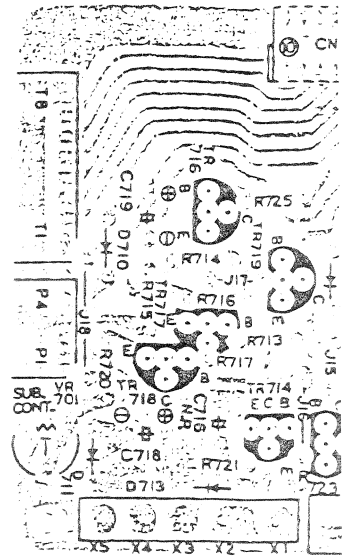
—Solder Side—

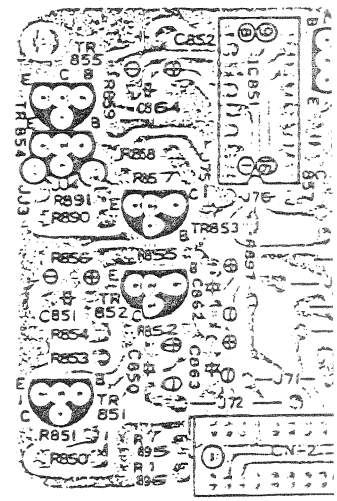


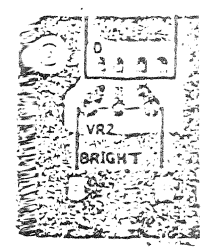


SWITCHING REGULATOR



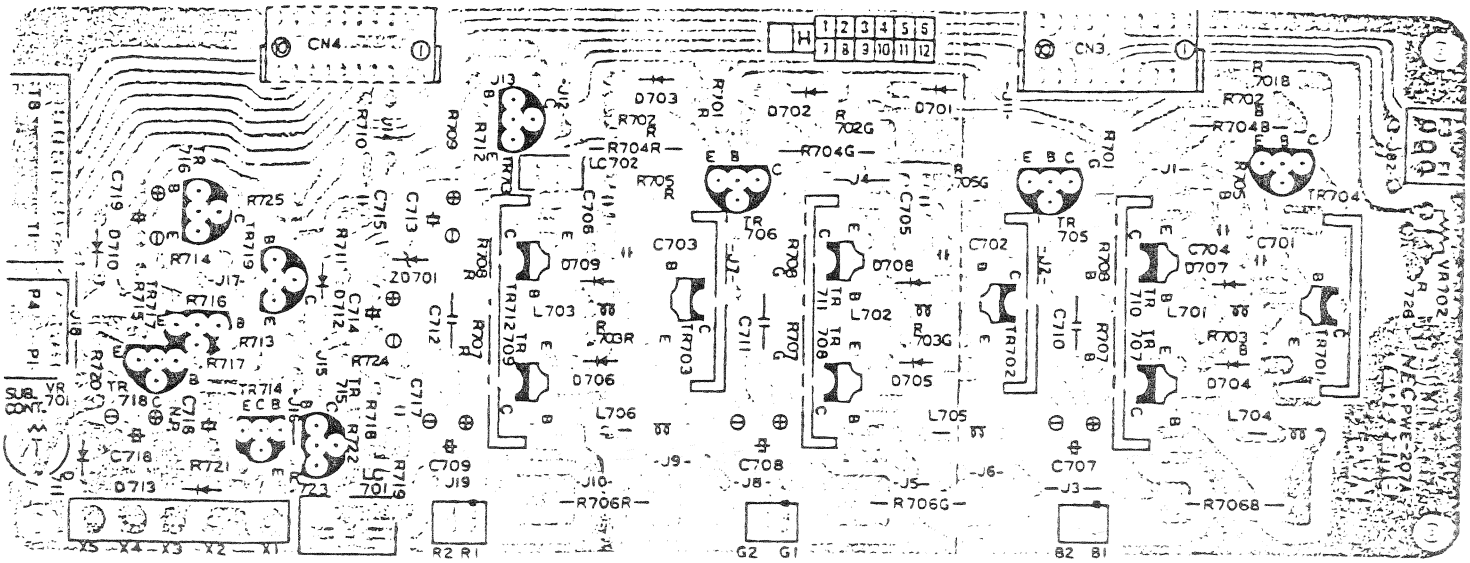




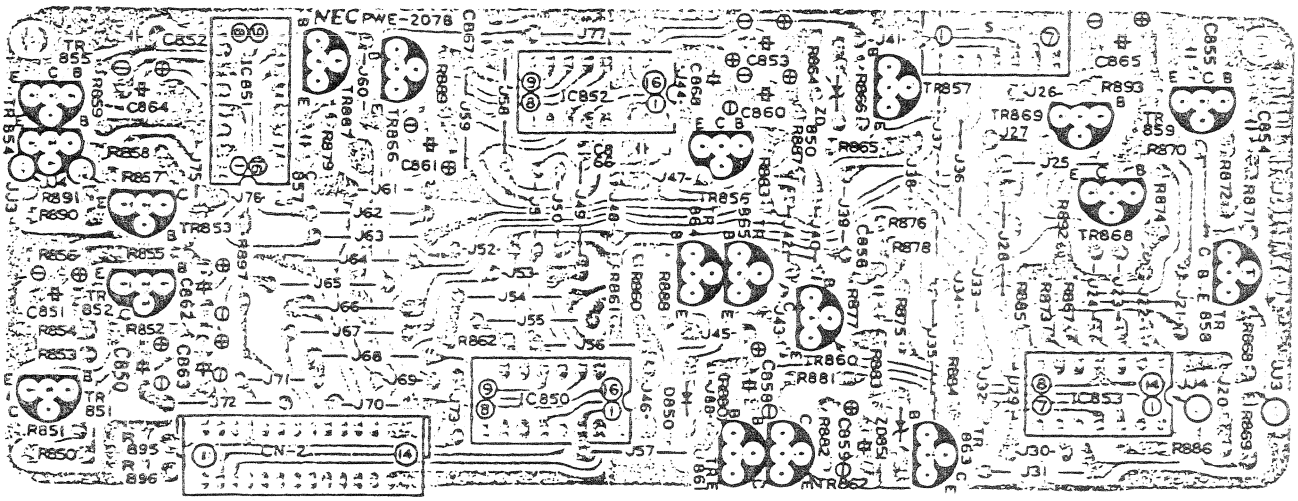


TOR POWER SUPPLY PWB ASSY (PWE-198)
—Solder Side—

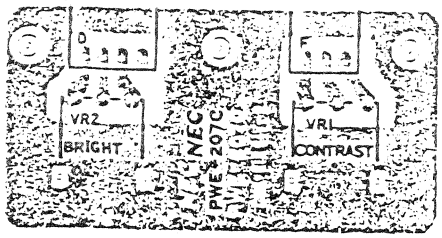
CONTROL PWE

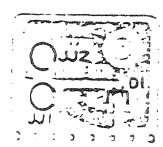


VIDEO PWB ASSY (PWE-207A)
—Solder Side—



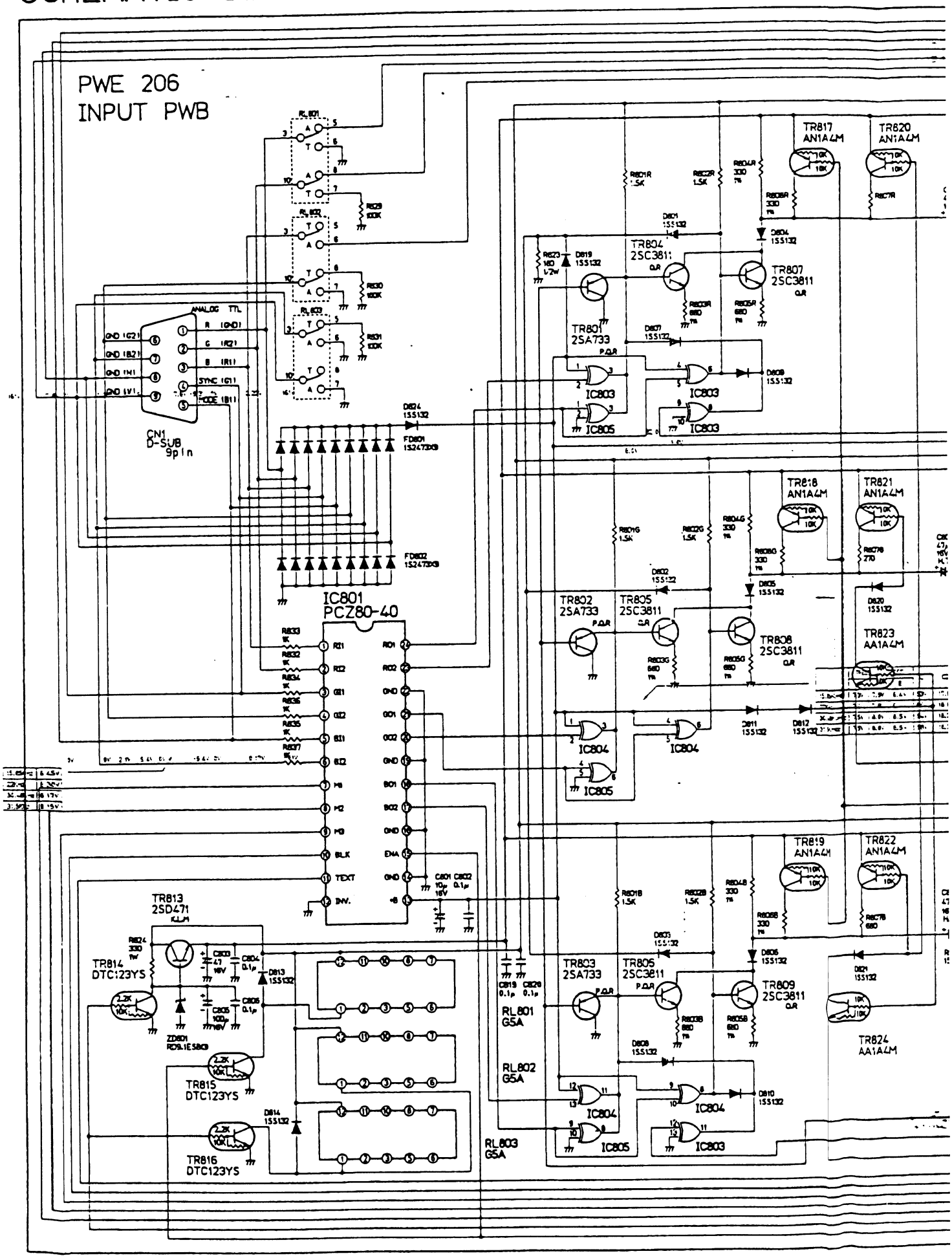
INTERFACE PWB ASSY (PWE 207B)
—Solder side—

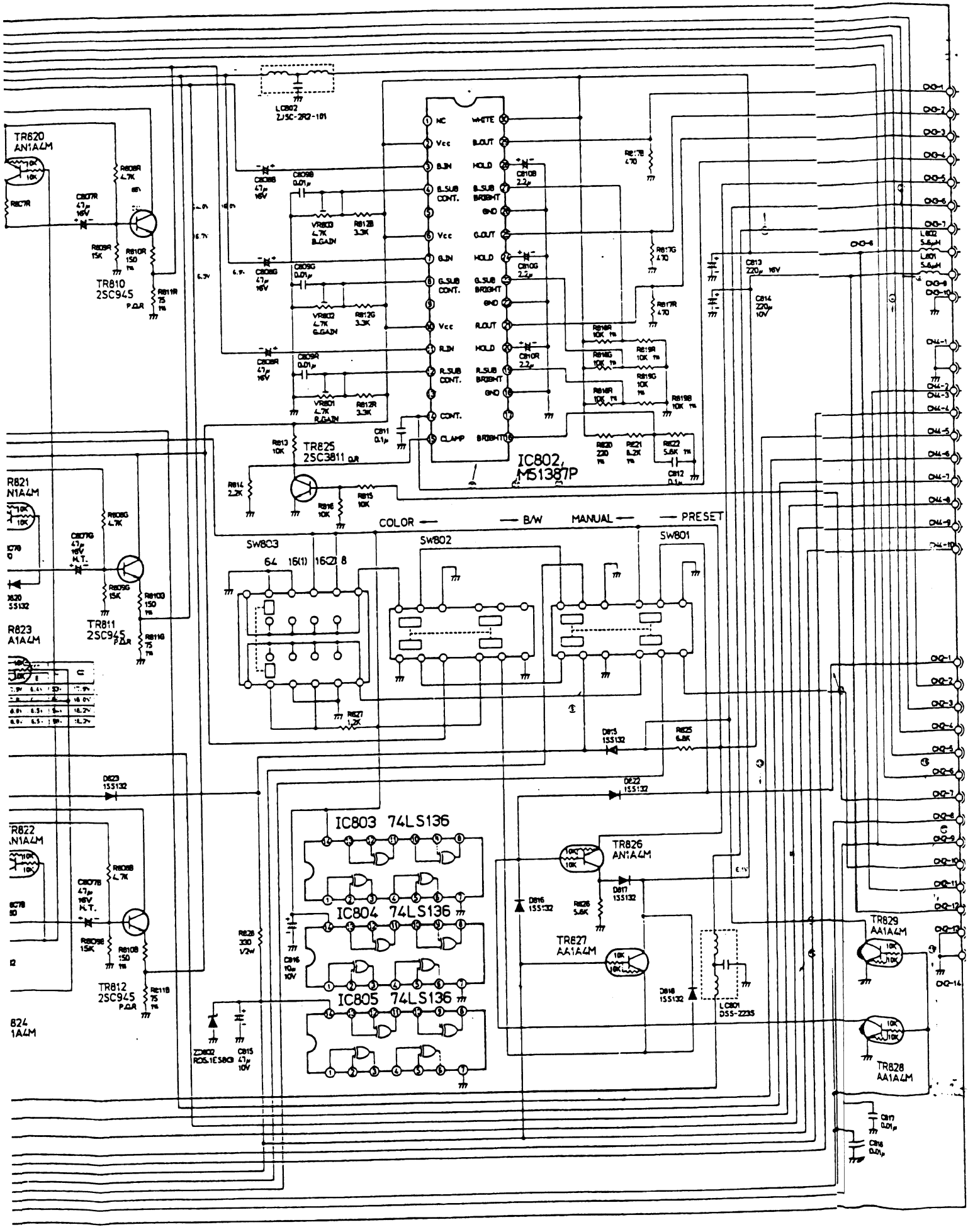


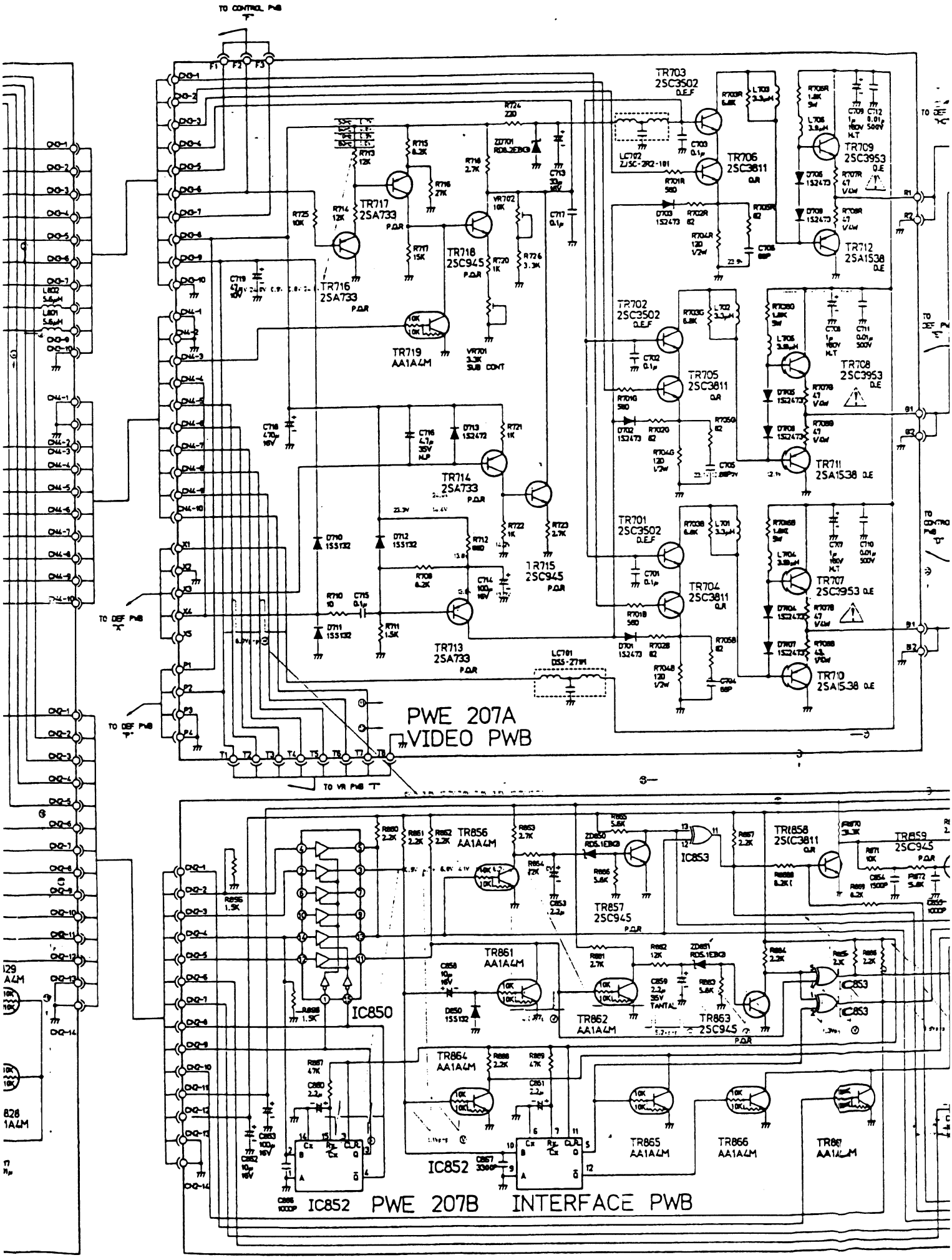


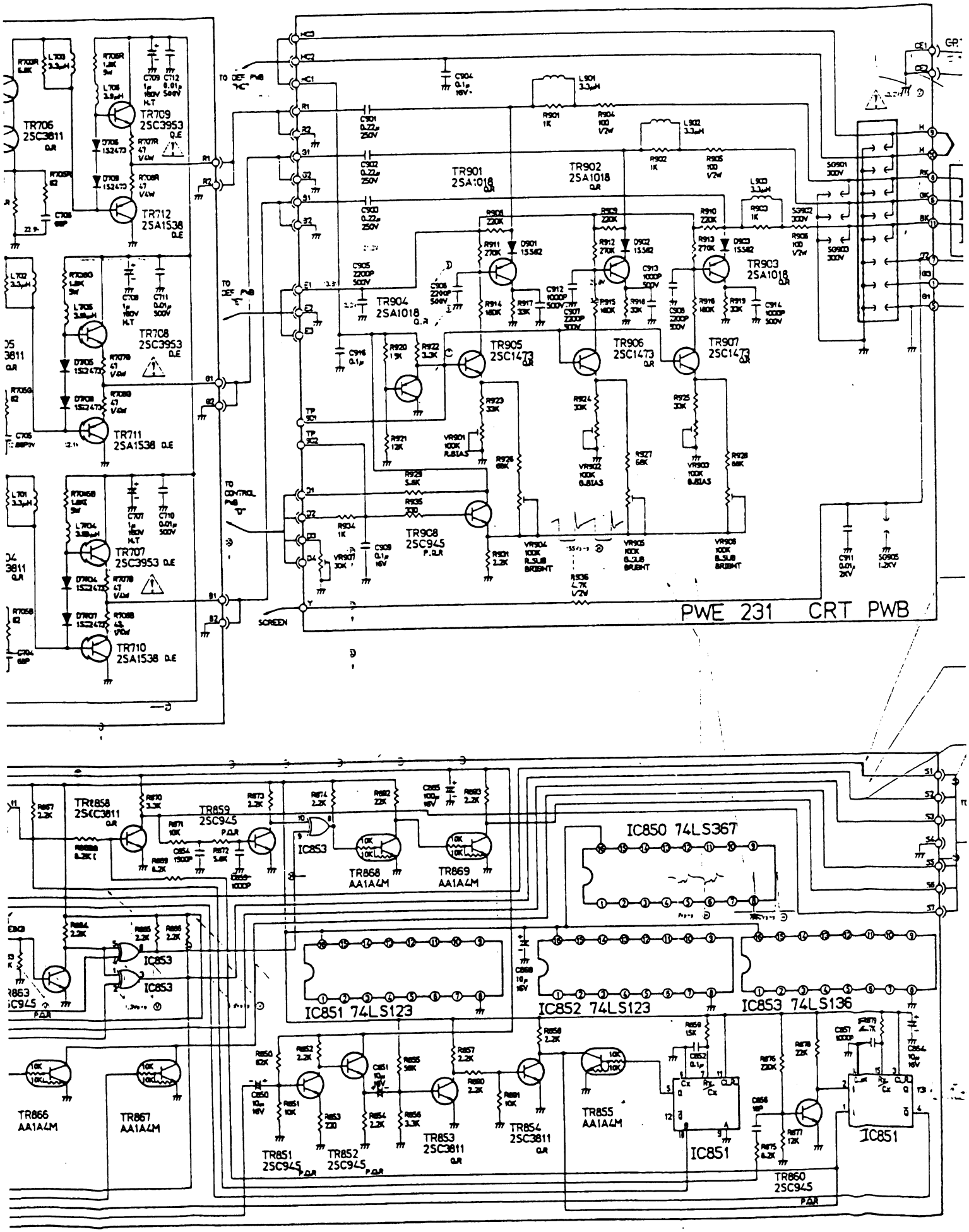
CONTROL PWB ASSY (PWE-207C)
—Solder Side—

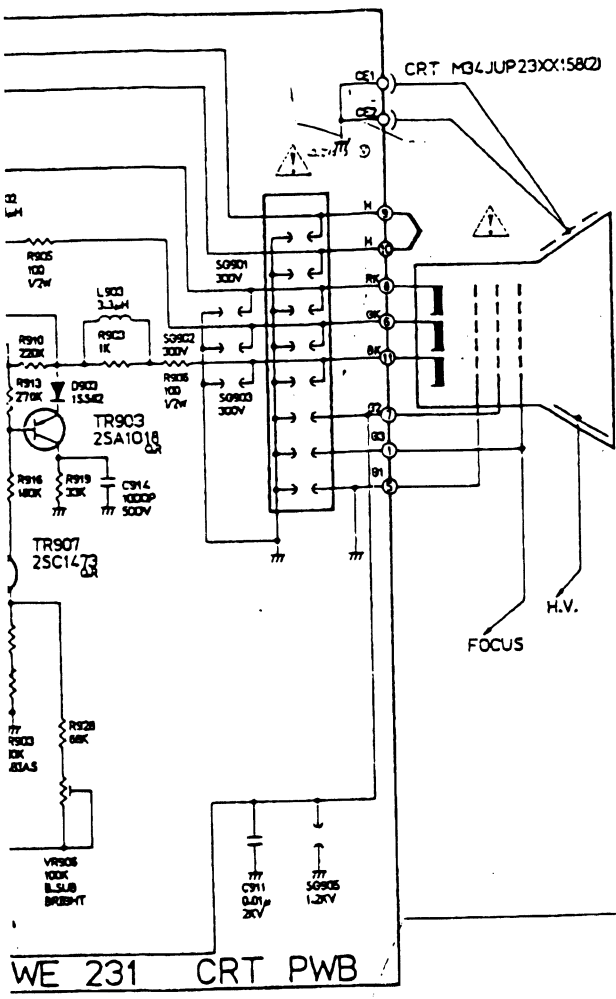
MODEL JC-1402HMED
SCHEMATIC DIAGRAM



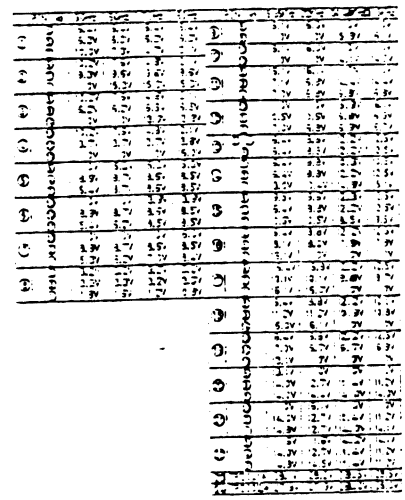

IC802, M51387P
IC803 74LS136
IC804 74LS136
IC805 74LS136
TR825 2SC3811 Q,R
TR810 2SC945 P,Q,R
TR811 2SC945 P,Q,R
TR812 2SC945 P,Q,R
TR826 AN1A4M
TR827 AA1A4M
TR828 AA1A4M
TR829 AA1A4M
SW803
SW802
SW801
COLOR
B/W
MANUAL
PRESET
WHITE
B.OUT
HOLD
B.SUB BRIGHT
G.OUT
R.OUT
R.SUB BRIGHT
BRIGHT
CONT.
CLAMP
B.IN
G.IN
R.IN
B.SUB CONT.
G.SUB CONT.
R.SUB CONT.
VR803 4.7K B.GAIN
VR802 4.7K G.GAIN
VR801 4.7K R.GAIN
LC802 2JSC-2R2-101
LC801 DSS-2235
ZD802 RDS.1ES803
D813 1SS132
D822 1SS132
D823 1SS132
D816 1SS132
D817 1SS132
D818 1SS132

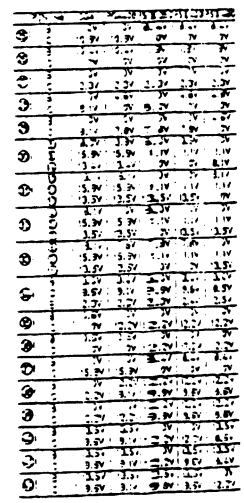

TO CONTROL PWB "F"
TR703 2SC3502
TR706 2SC3811
TR709 2SC3953
TR712 2SA1538
TR717 2SA733
TR718 2SC945
TR716 2SA733
TR719 AA1A4M
TR702 2SC3502
TR705 2SC3811
TR708 2SC3953
TR711 2SA1538
TR714 2SA733
TR715 2SC945
TR713 2SA733
TR701 2SC3502
TR704 2SC3811
TR707 2SC3953
TR710 2SA1538
TO DEF PWB "X"
TO DEF PWB "F"
TO VR PWB "F"
PWE 207A
VIDEO PWB
TR856 AA1A4M
TR857 2SC945
TR858 2SC3811
TR859 2SC945
IC853
TR861 AA1A4M
TR862 AA1A4M
TR863 2SC945
IC850
TR864 AA1A4M
TR865 AA1A4M
TR866 AA1A4M
TR867 AA1A4M
IC852
IC852
PWE 207B INTERFACE PWB

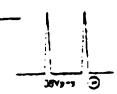

PWE 231 CRT PWB
TR706 2SC3811
TR709 2SC3953
TR712 2SA1538
TR708 2SC3953
TR711 2SA1538
TR707 2SC3953
TR710 2SA1538
TR901 2SA1018
TR902 2SA1018
TR903 2SA1018
TR904 2SA1018
TR905 2SC1473
TR906 2SC1473
TR907 2SC1473
TR908 2SC945
TR858 2SC3811
TR859 2SC945
TR868 AA1A4M
TR869 AA1A4M
TR866 AA1A4M
TR867 AA1A4M
TR851 2SC945
TR852 2SC945
TR853 2SC3811
TR854 2SC3811
TR855 AA1A4M
TR860 2SC945
IC850 74LS367
IC851 74LS123
IC852 74LS123
IC853 74LS136
IC853
IC851

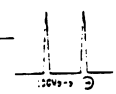


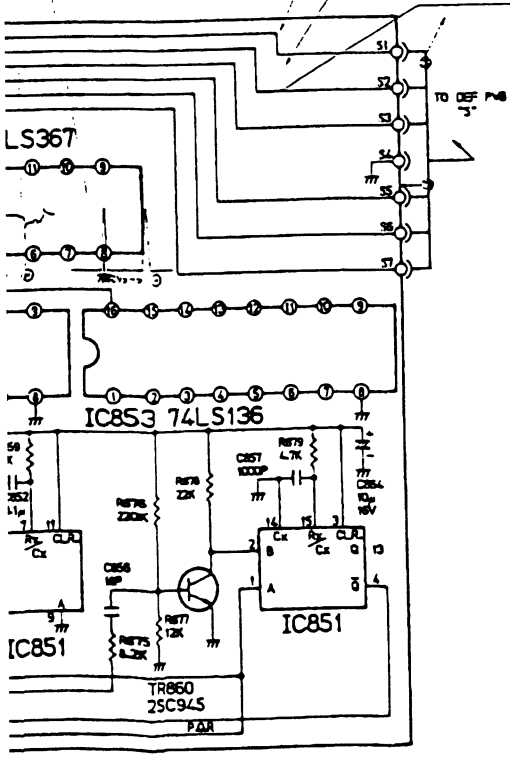
DEF PWB











NOTES

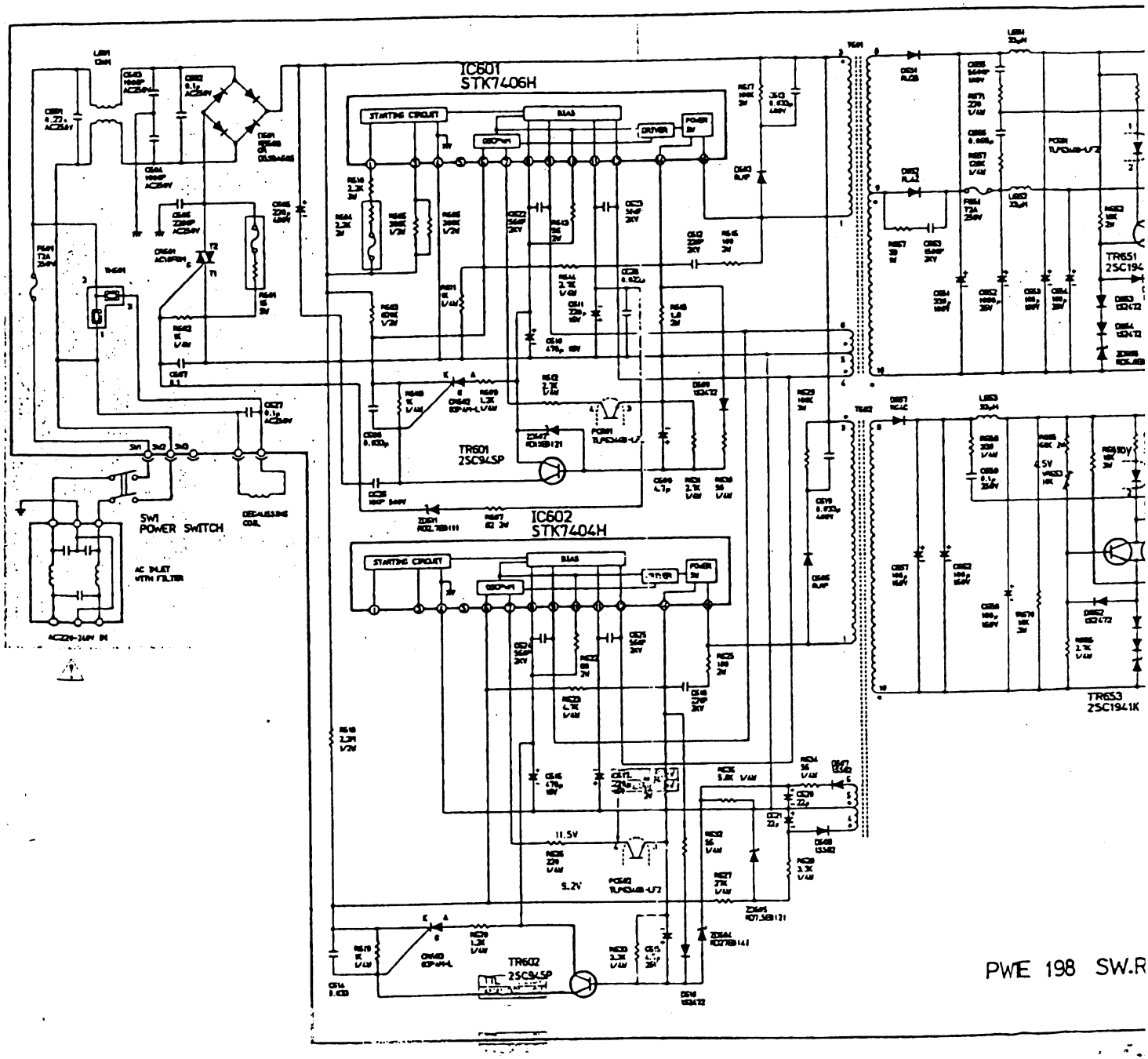
1. RESISTOR VALUES ARE IN Ω (OHM) K = 1,000Ω M = 1,000,000Ω
2. ALL RESISTORS ARE 1/6WATT EXCEPT WHERE OTHERWISE INDICATED.
3. CAPACITOR VALUES ARE IN μF UNLESS OTHERWISE INDICATED. P = PF
4. ALL CAPACITORS ARE 50VOLTS EXCEPT WHERE OTHERWISE INDICATED.
5. VOLTAGES AND WAVEFORMS ARE MEASURED UNDER THE CHARACTER SIGNALS IN THE CONDITIONS OF CONTRAST AND BRIGHTNESS CONTROLS ARE MAXIMUM AND ALL OTHER CONTROLS ARE NORMAL OPERATION.
6. Ⓗ----- HORIZONTAL RATE. Ⓥ----- VERTICAL RATE.
7. VOLTAGES AND WAVEFORMS ARE MEASURED UNDER THE FOLLOWING SYNC. AND VIDEO. EXCEPT WHERE OTHERWISE INDICATED.
   SYNC: HORIZONTAL RATE = 22KHz SEPARATE SYNC. TTL LEVEL POSITIVE
   VIDEO: TTL LEVEL POSITIVE

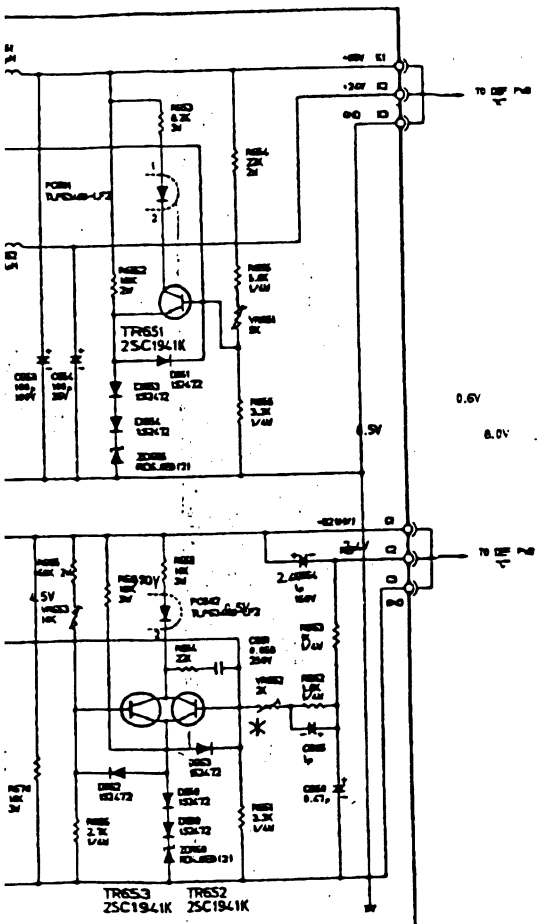
WARNING

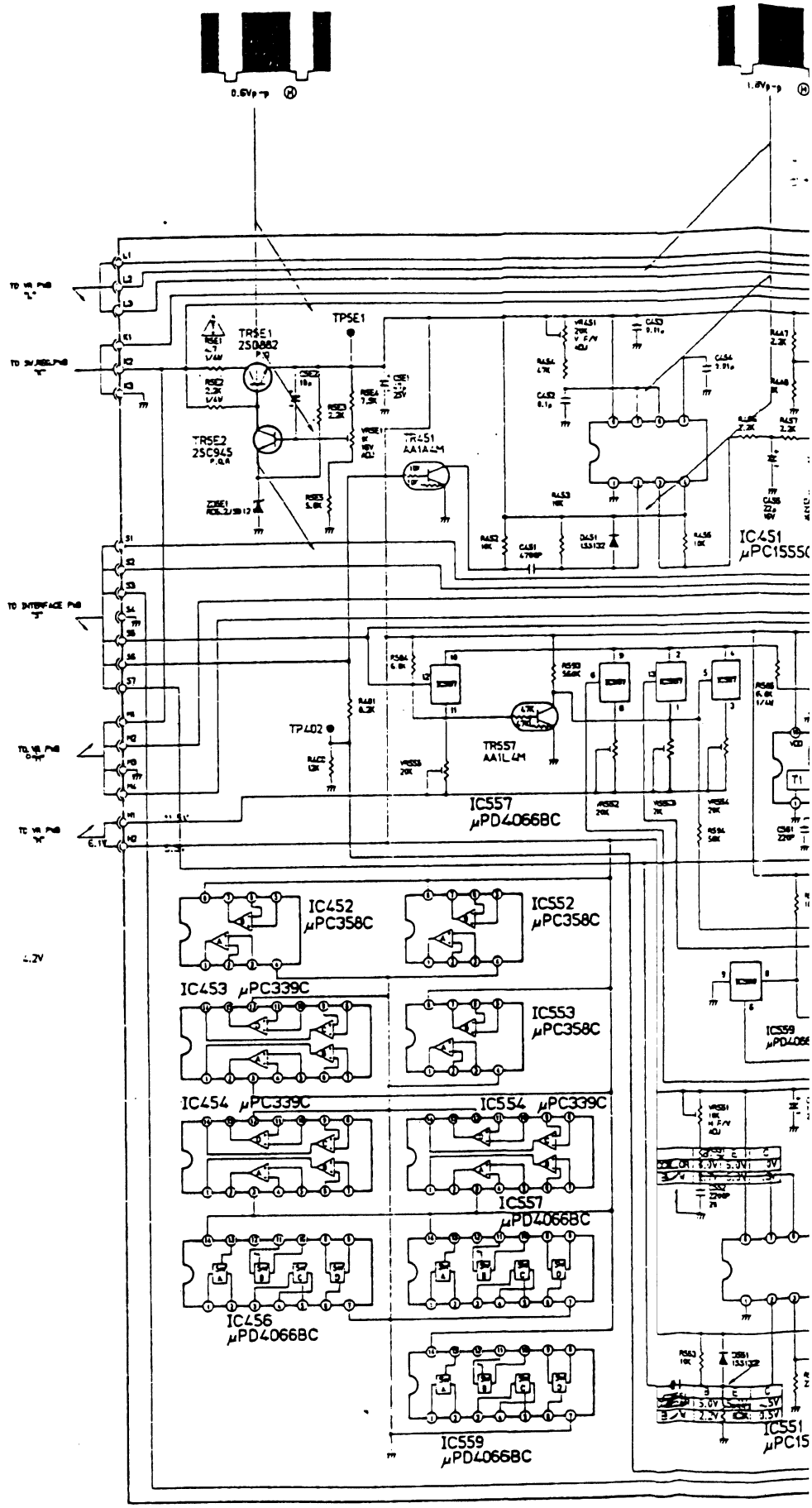
REPLACEMENT PARTS WHICH HAVE SPECIAL SAFETY CHARACTERISTICS ARE IDENTIFIED BY ⚠ SHADING ON THE SCHEMATICS. REPLACE THESE CRITICAL COMPONENTS WITH RECOMMENDED REPLACEMENT PARTS. DON'T DEGRADE THE SAFETY OF THE SET THROUGH IMPROPER SERVICING.

CONTROL ISI MARKED * IS PERMANENTLY FROZEN. DO NOT ATTEMPT TO DEFEAT OR IMPROPERLY REPLACE.

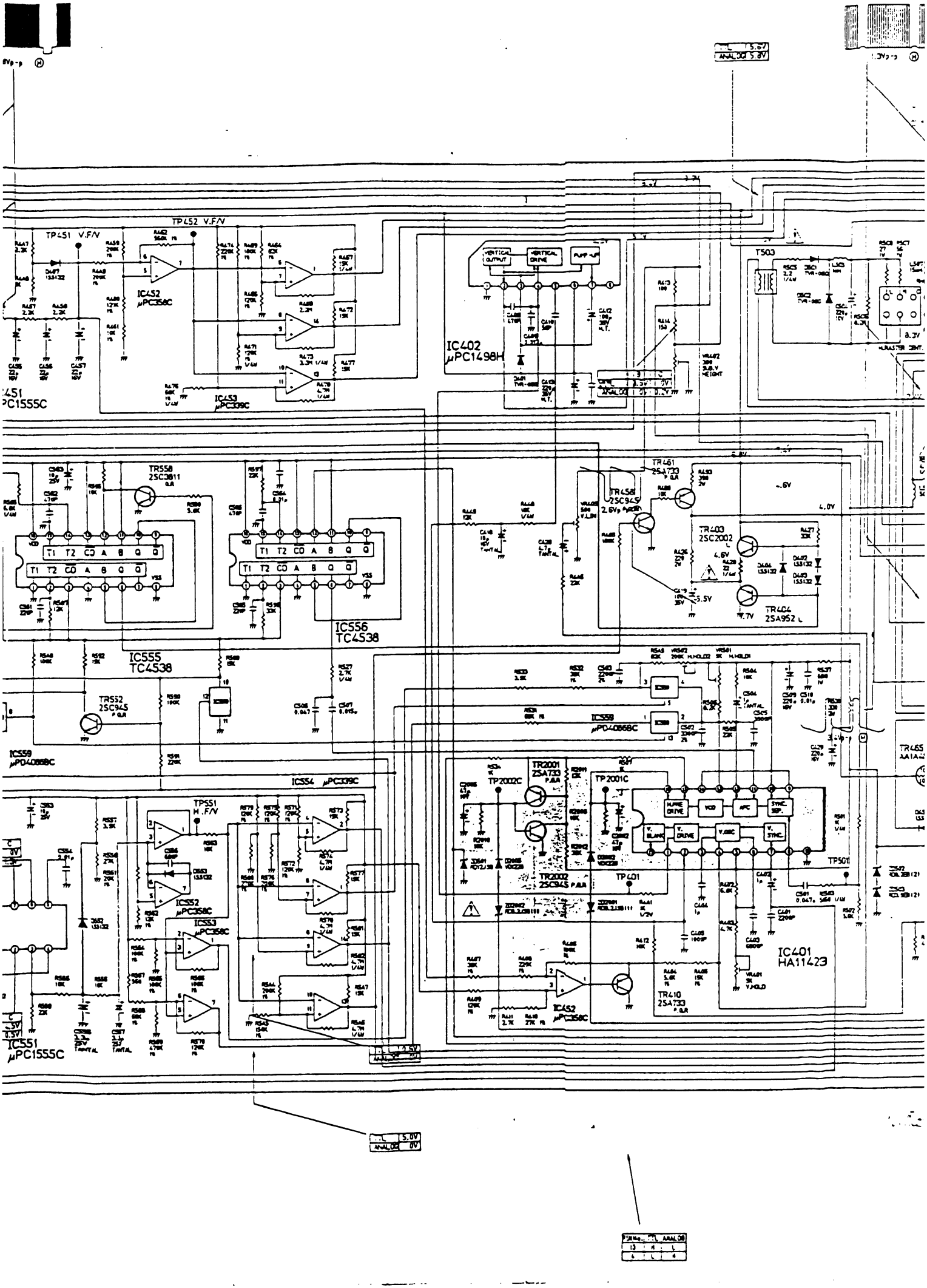
MODEL JC-1402HMED
SCHEMATIC DIAGRAM

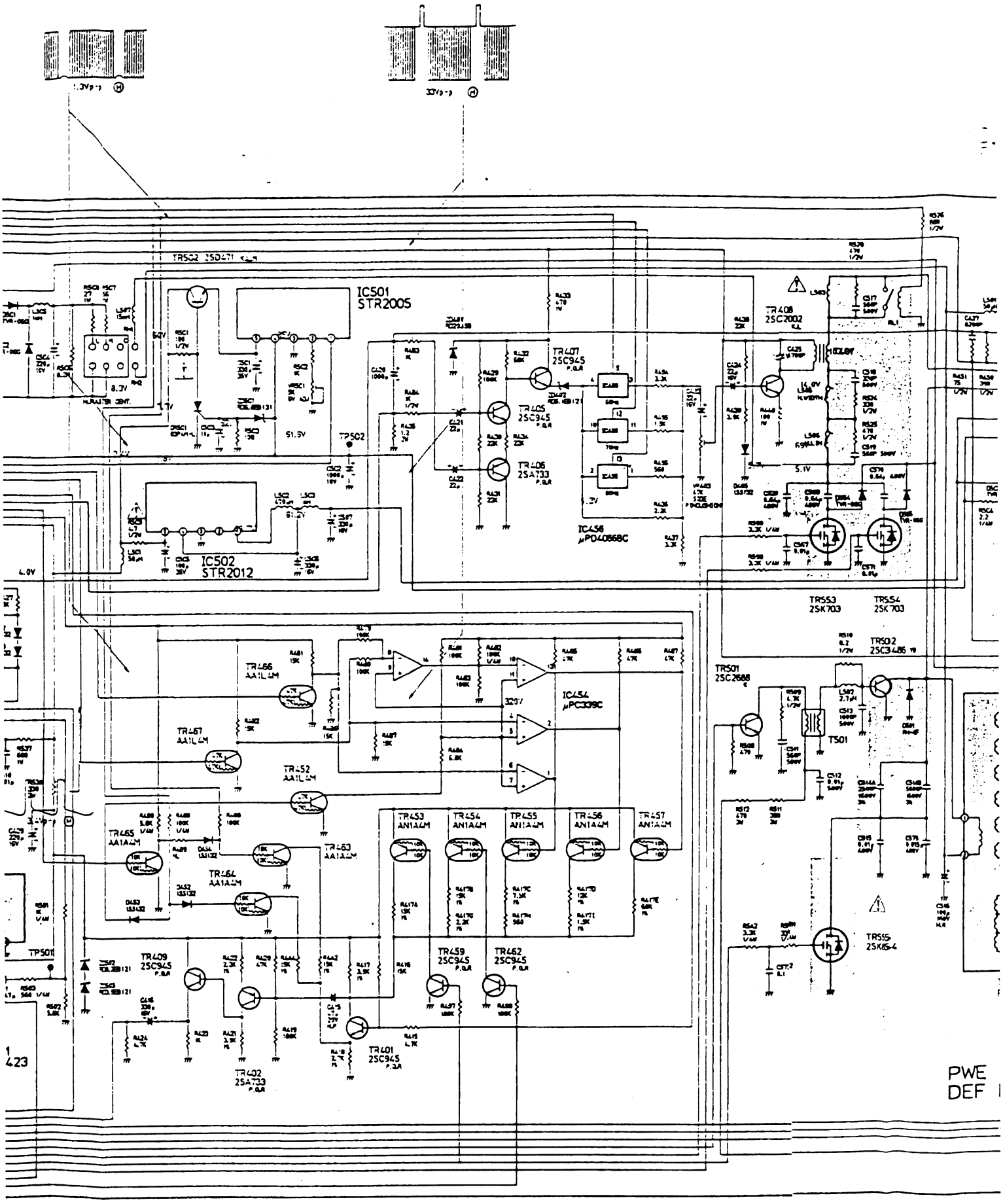


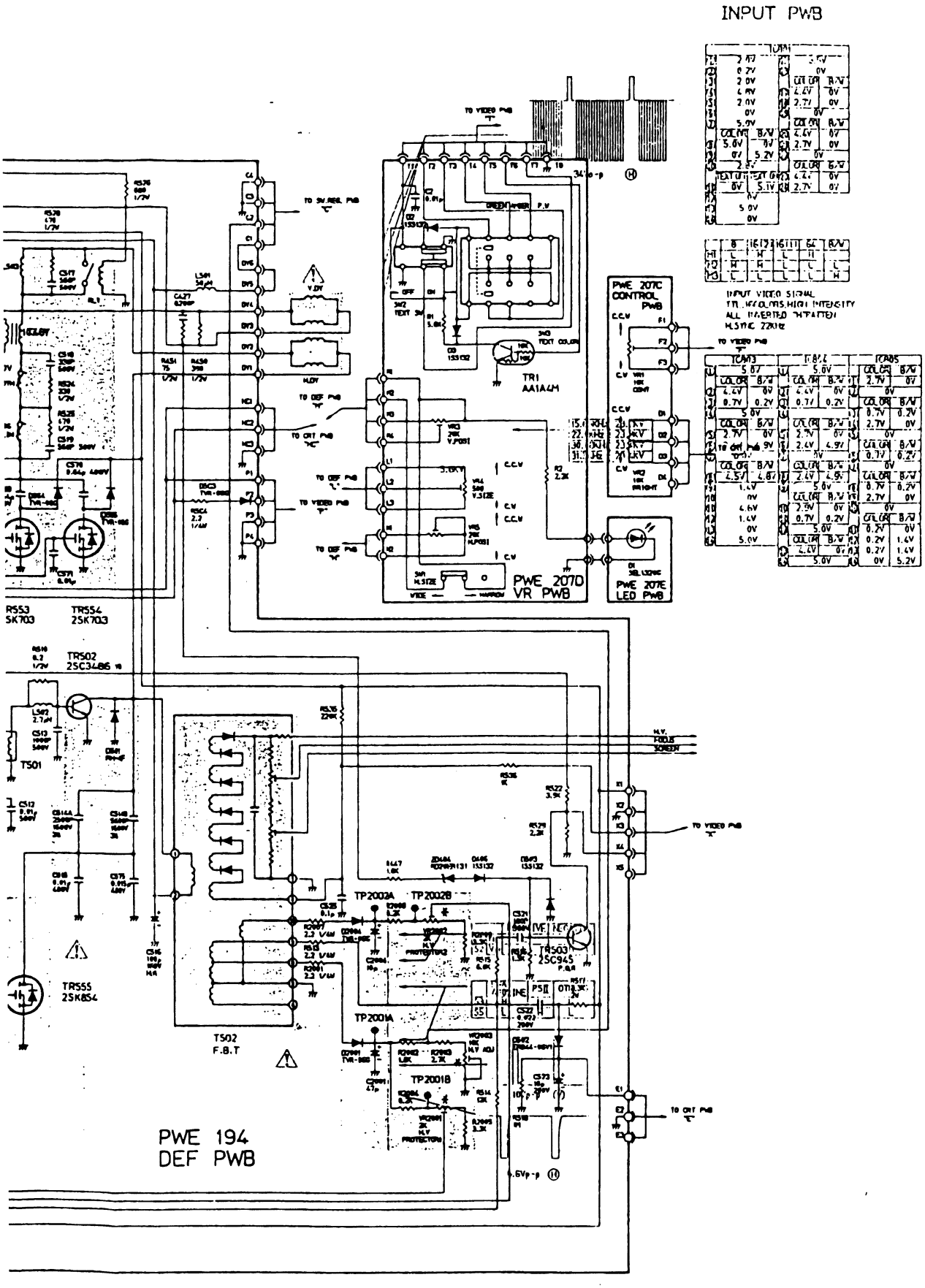


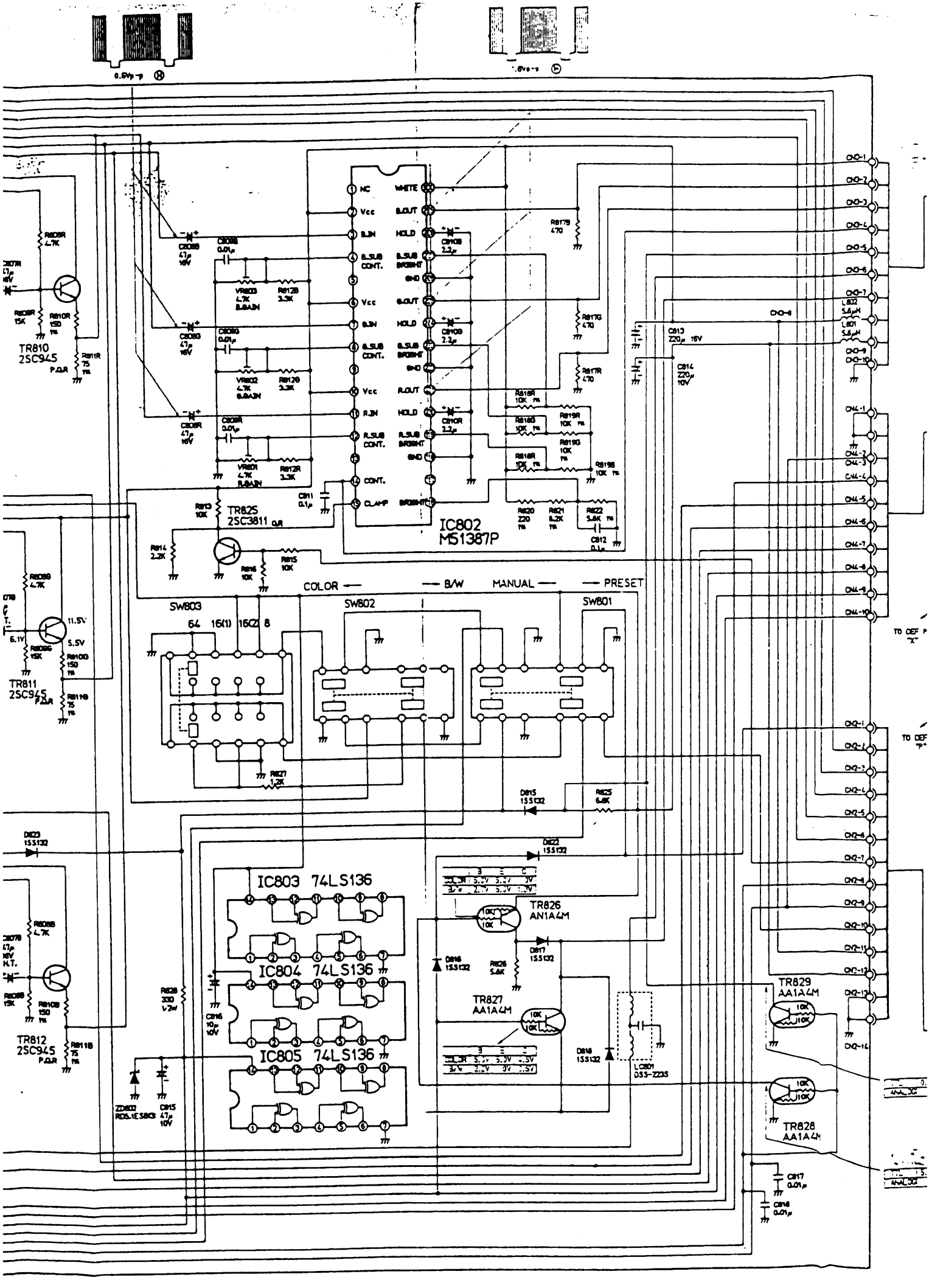


VE 198 SW.REG. PWB

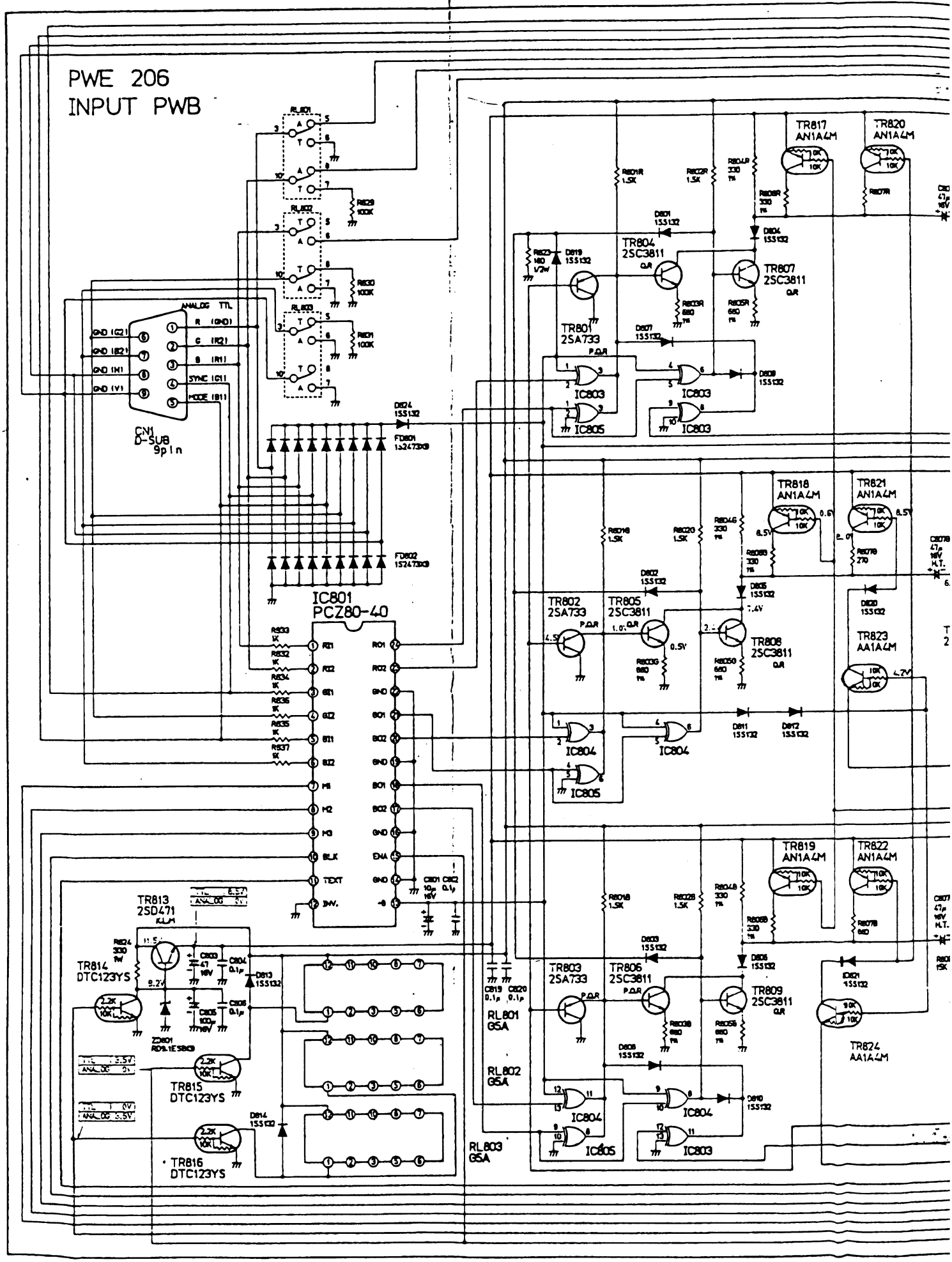

TP452 V.F/V
TP451 V.F/V
IC452 μPC358C
IC453 μPC339C
IC451 μPC1555C
IC402 μPC1498H
T503
TR461 2SA733
TR458 2SC945
TR403 2SC2002
TR404 2SA952
TR558 2SC3811
IC556 TC4538
IC555 TC4538
TR552 2SC945
IC558 μPD4066BC
IC559 μPD4066BC
IC554 μPC339C
TP551 H.F/V
IC552 μPC358C
IC553 μPC358C
IC551 μPC1555C
TR2001 2SA733
TR2002 2SC945
TP2002C
TP2001C
TP401
TP501
IC401 HA11423
TR410 2SA733
IC452 μPC358C
5.8V
ANALOG 5.8V
ANALOG 0V

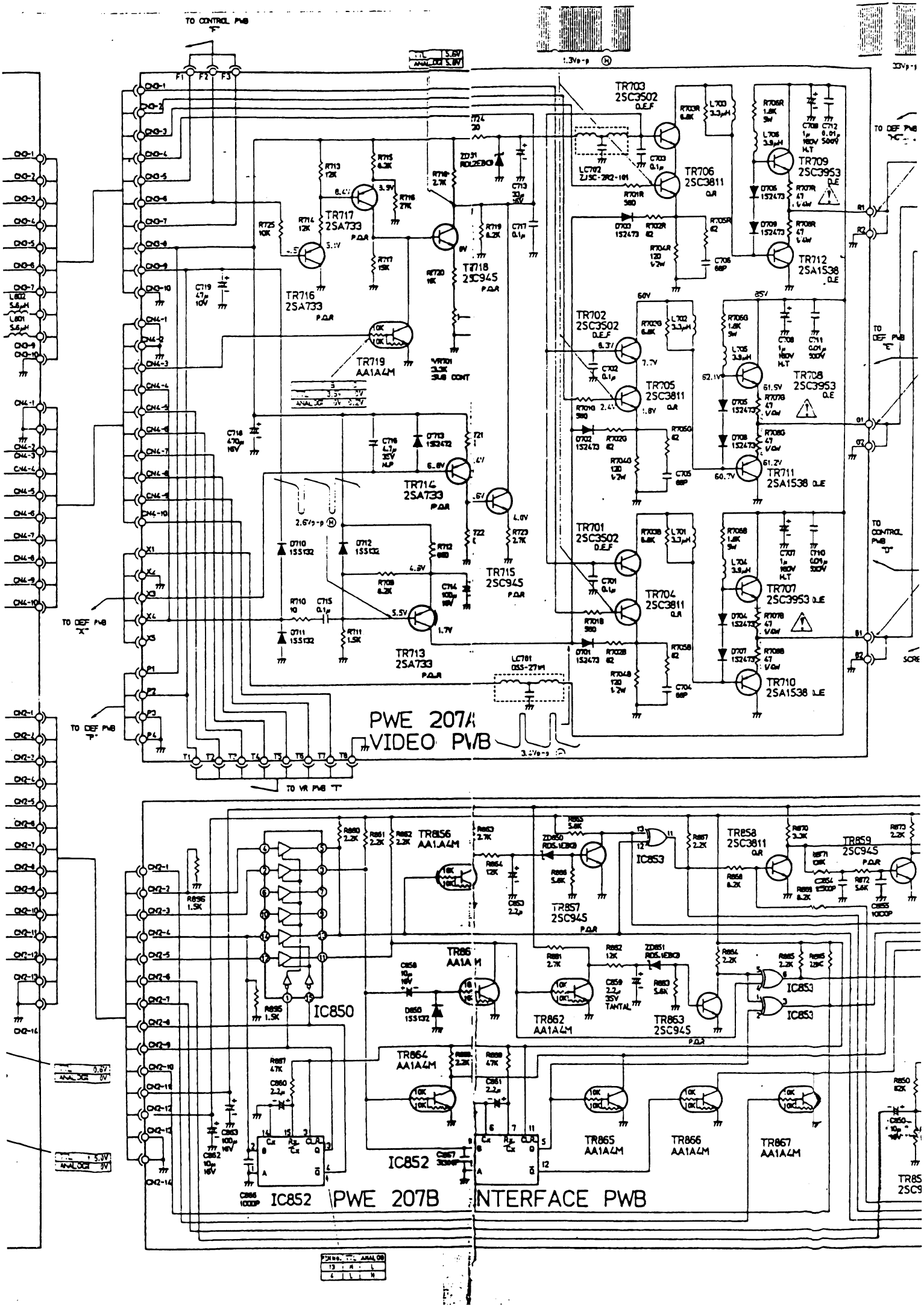

IC501
STR2005
IC502
STR2012
TR502 2SD471
TR408
2SC2002
TR407
2SC945
TR405
2SC945
TR406
2SA733
IC456
μPD4066BC
TR553
2SK703
TR554
2SK703
TR502
2SC3486
TR501
2SC2688
IC454
μPC339C
TR466
AA1L4M
TR467
AA1L4M
TR452
AA1L4M
TR465
AA1A4M
TR463
AA1A4M
TR464
AA1A4M
TR453
AN1A4M
TR454
AN1A4M
TR455
AN1A4M
TR456
AN1A4M
TR457
AN1A4M
TR409
2SC945
TR459
2SC945
TR462
2SC945
TR401
2SC945
TR402
2SA733
TR555
2SK65-4
TS01
TP501
TP502
8.3V
91.5V
5.1V
4.0V
PWE
DEF

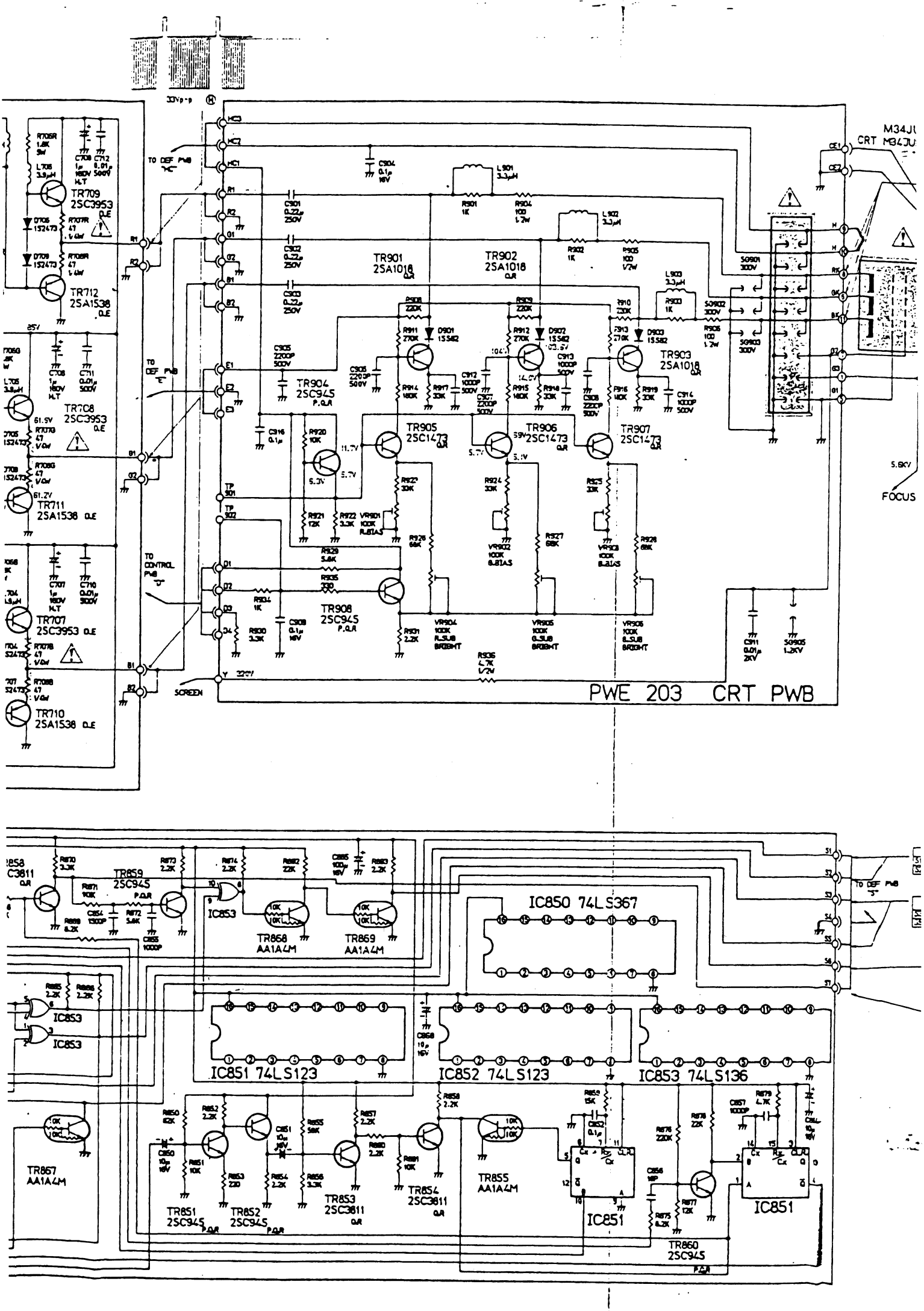

INPUT PWB
PWE 207C
CONTROL
PWB
PWE 207D
VR PWB
PWE 207E
LED PWB
TR1
AA1A4M
TR553
SK703
TR554
2SK703
TR502
2SC3486
T501
TR555
2SK854
T502
F.B.T
TP2003A
TP2002B
TP2001A
TP2001B
TR503
2SC945
PWE 194
DEF PWB


IC802
M51387P
IC803 74LS136
IC804 74LS136
IC805 74LS136
TR810
2SC945
TR811
2SC945
TR812
2SC945
TR825
2SC3811
TR826
AN1A4M
TR827
AA1A4M
TR828
AA1A4M
TR829
AA1A4M
COLOR
B/W
MANUAL
PRESET
SW803
SW802
SW801
IC802 MS1387P

MODELS JC-1402HME/EE/N/R (CRT PWB)
SCHEATIC DIAGRAM

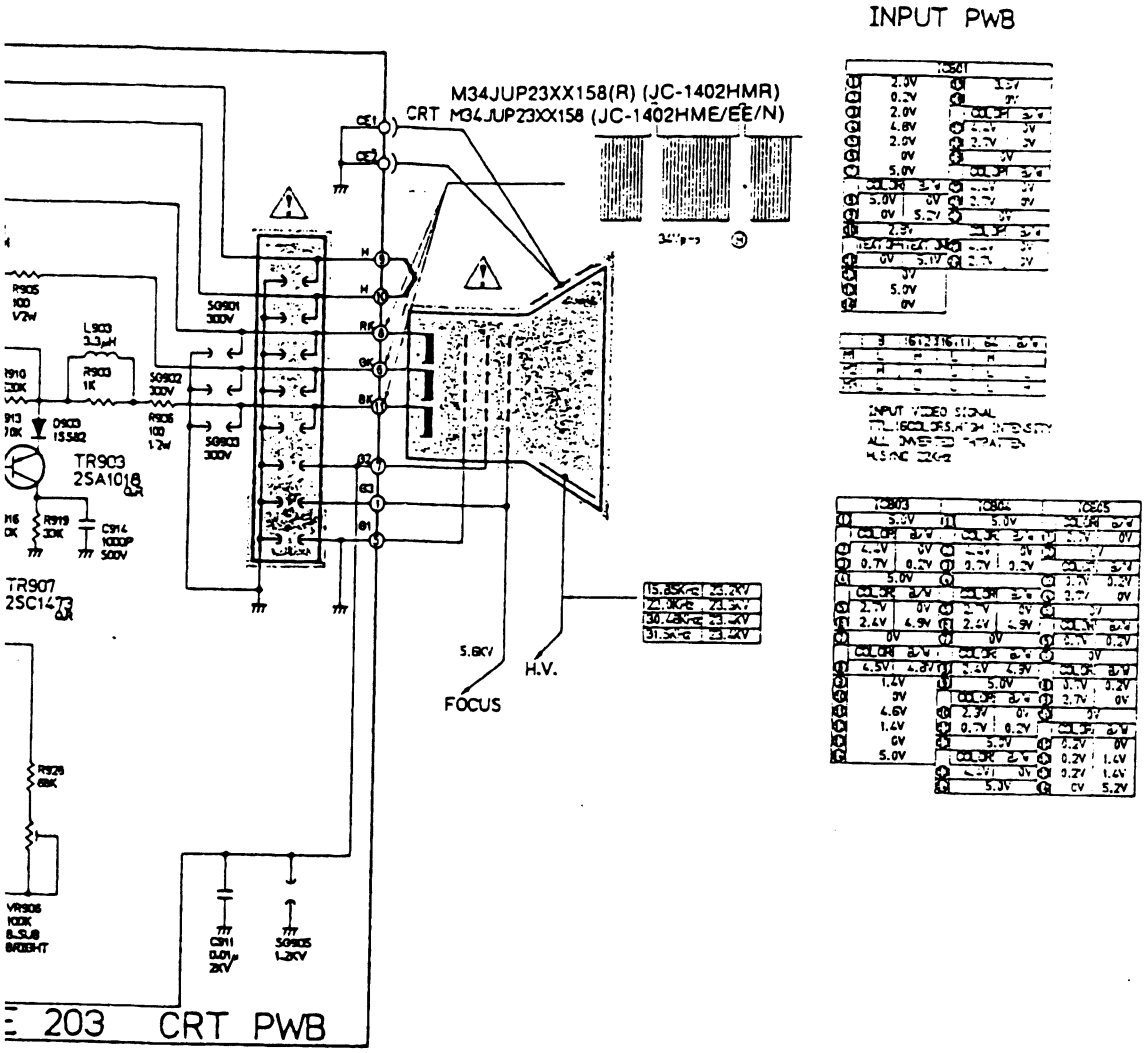


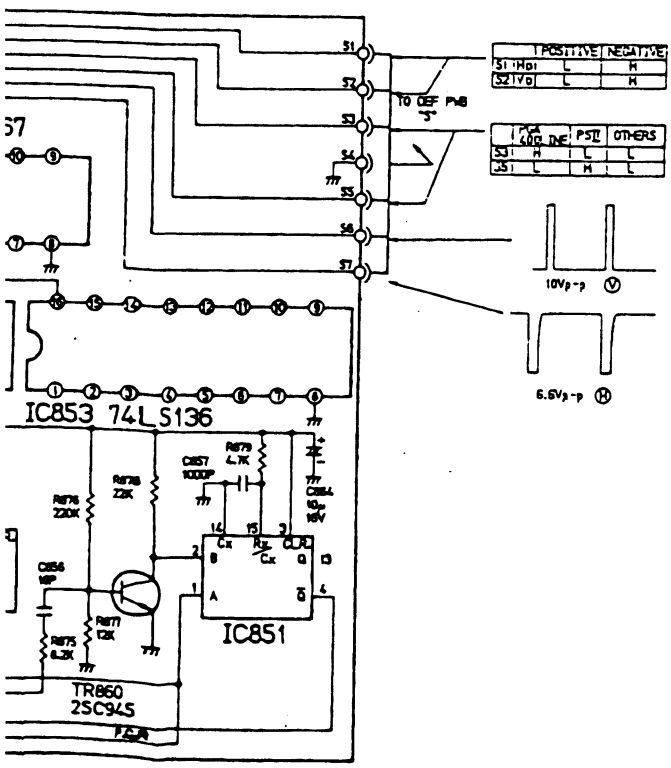

TO CONTROL PWB
TO DEF PWB "X"
TO DEF PWB "Y"
TO VR PWB "T"
TR703 2SC3502 D,E,F
TR706 2SC3811 Q,R
TR709 2SC3953 D,E
TR712 2SA1538 D,E
TR702 2SC3502 D,E,F
TR705 2SC3811 Q,R
TR708 2SC3953 D,E
TR711 2SA1538 D,E
TR701 2SC3502 D,E,F
TR704 2SC3811 Q,R
TR707 2SC3953 D,E
TR710 2SA1538 D,E
TR716 2SA733 P,Q,R
TR717 2SA733 P,Q,R
TR718 2SC945 P,Q,R
TR719 AA1A4M
TR714 2SA733 P,Q,R
TR715 2SC945 P,Q,R
TR713 2SA733 P,Q,R
PWE 207A
VIDEO PWB
IC850
TR856 AA1A4M
TR857 2SC945 P,Q,R
IC853
TR858 2SC3811 Q,R
TR859 2SC945 P,Q,R
TR86 AA1A4M
TR862 AA1A4M
TR863 2SC945 P,Q,R
TR864 AA1A4M
TR865 AA1A4M
TR866 AA1A4M
TR867 AA1A4M
IC852
PWE 207B
INTERFACE PWB


PWE 203 CRT PWB
TR709 2SC3953 O.E
TR712 2SA1538 O.E
TR708 2SC3953 O.E
TR711 2SA1538 O.E
TR707 2SC3953 O.E
TR710 2SA1538 O.E
TR901 2SA1018 O.R
TR902 2SA1018 O.R
TR903 2SA1018 O.R
TR904 2SC945 P.Q.R
TR905 2SC1473 O.R
TR906 2SC1473 O.R
TR907 2SC1473 O.R
TR908 2SC945 P.Q.R
TO DEF PWB
TO CONTROL PWB
SCREEN
FOCUS
M34JU
CRT M34JU
TR859 2SC945 P.Q.R
TR868 AA1A4M
TR869 AA1A4M
IC850 74LS367
IC853
IC851 74LS123
IC852 74LS123
IC853 74LS136
TR867 AA1A4M
TR851 2SC945 P.Q.R
TR852 2SC945 P.Q.R
TR853 2SC3811 O.R
TR854 2SC3811 O.R
TR855 AA1A4M
IC851
TR860 2SC945 P.Q.R

RUN NO.1

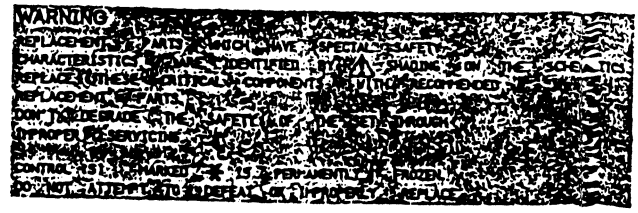
INPUT PWB





NOTES

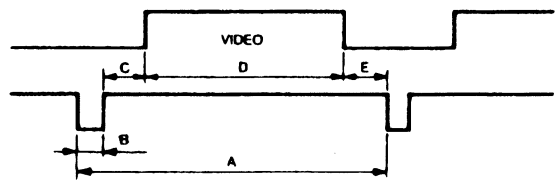
1. RESISTOR VALUES ARE IN Ω (OHM) K = 1,000Ω M = 1,000,000Ω
2. ALL RESISTORS ARE 1/6WATT EXCEPT WHERE OTHERWISE INDICATED.
3. CAPACITOR VALUES ARE IN μF UNLESS OTHERWISE INDICATED. P = PF
4. ALL CAPACITORS ARE 50VOLTS EXCEPT WHERE OTHERWISE INDICATED.
5. VOLTAGES AND WAVEFORMS ARE MEASURED UNDER THE CHARACTER SIGNALS IN THE CONDITIONS OF CONTRAST AND BRIGHTNESS CONTROLS ARE MAXIMUM AND ALL OTHER CONTROLS ARE NORMAL OPERATION.
6. Ⓗ---- HORIZONTAL RATE. Ⓥ---- VERTICAL RATE.
7. VOLTAGES AND WAVEFORMS ARE MEASURED UNDER THE FOLLOWING SYNC. AND VIDEO. EXCEPT WHERE OTHERWISE INDICATED.
   SYNC: HORIZONTAL RATE - 22KHz SEPARATE SYNC. TTL LEVEL. POSITIVE
   VIDEO: TTL LEVEL. POSITIVE



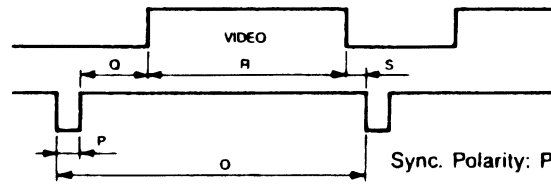
TIMING CHARTS

SEPARATE SYNC.

HORIZONTAL



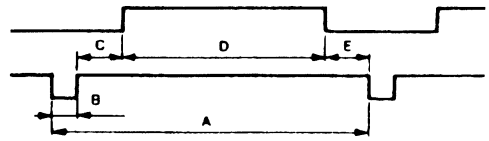
VERTICAL



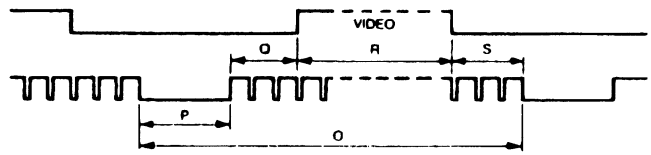
Sync. Polarity: Positive/Negative

COMPOSITE SYNC.

HORIZONTAL



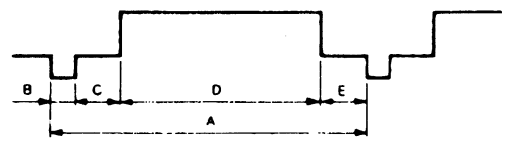
VERTICAL



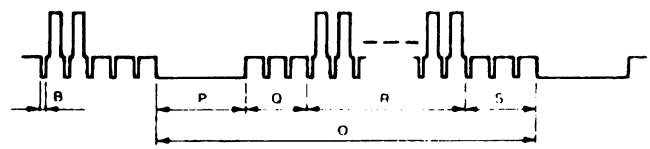
Sync. Polarity: Positive/Negative

COMPOSITE SYNC. & VIDEO (SYNC. ON GREEN)

HORIZONTAL



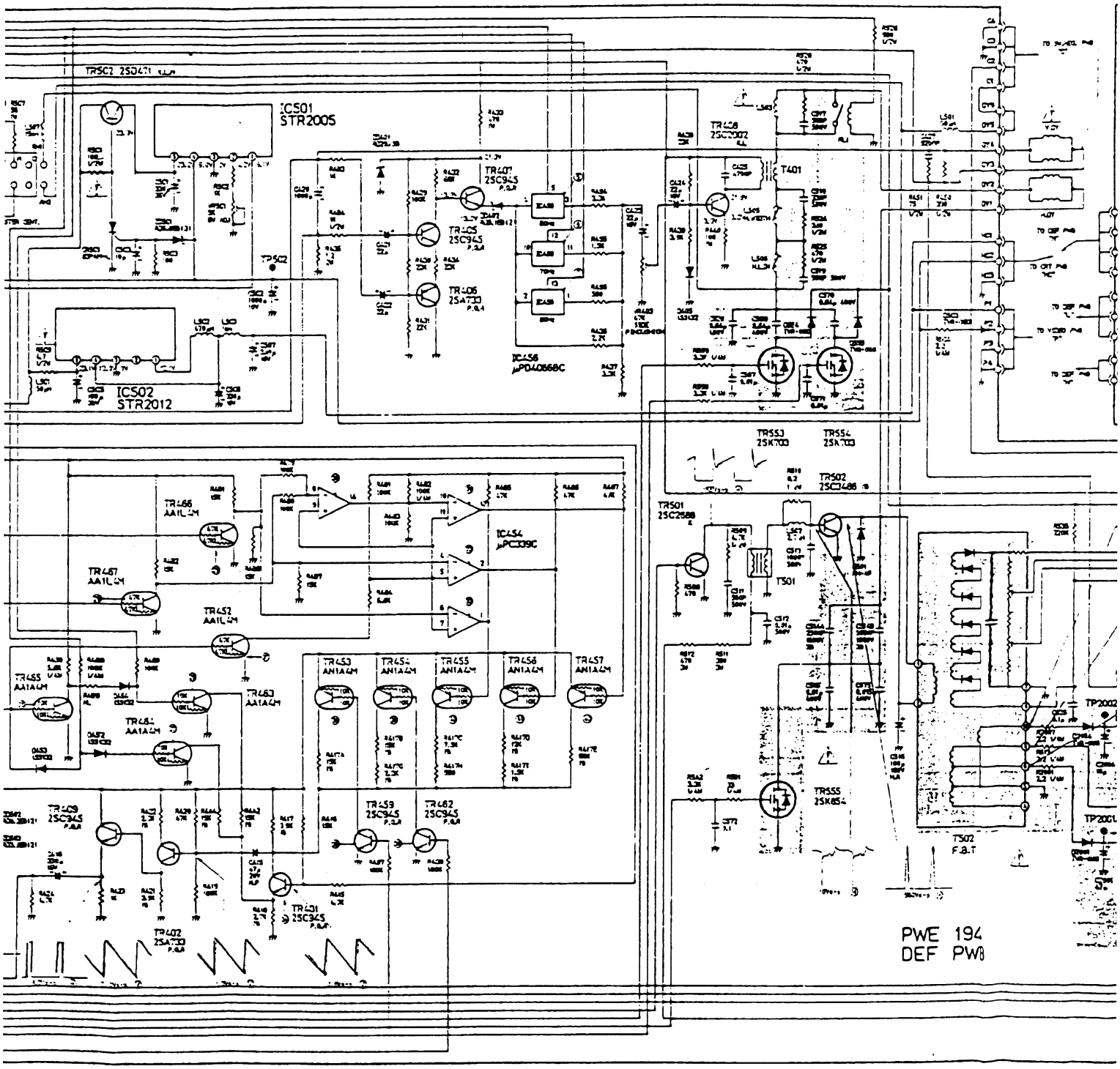
VERTICAL

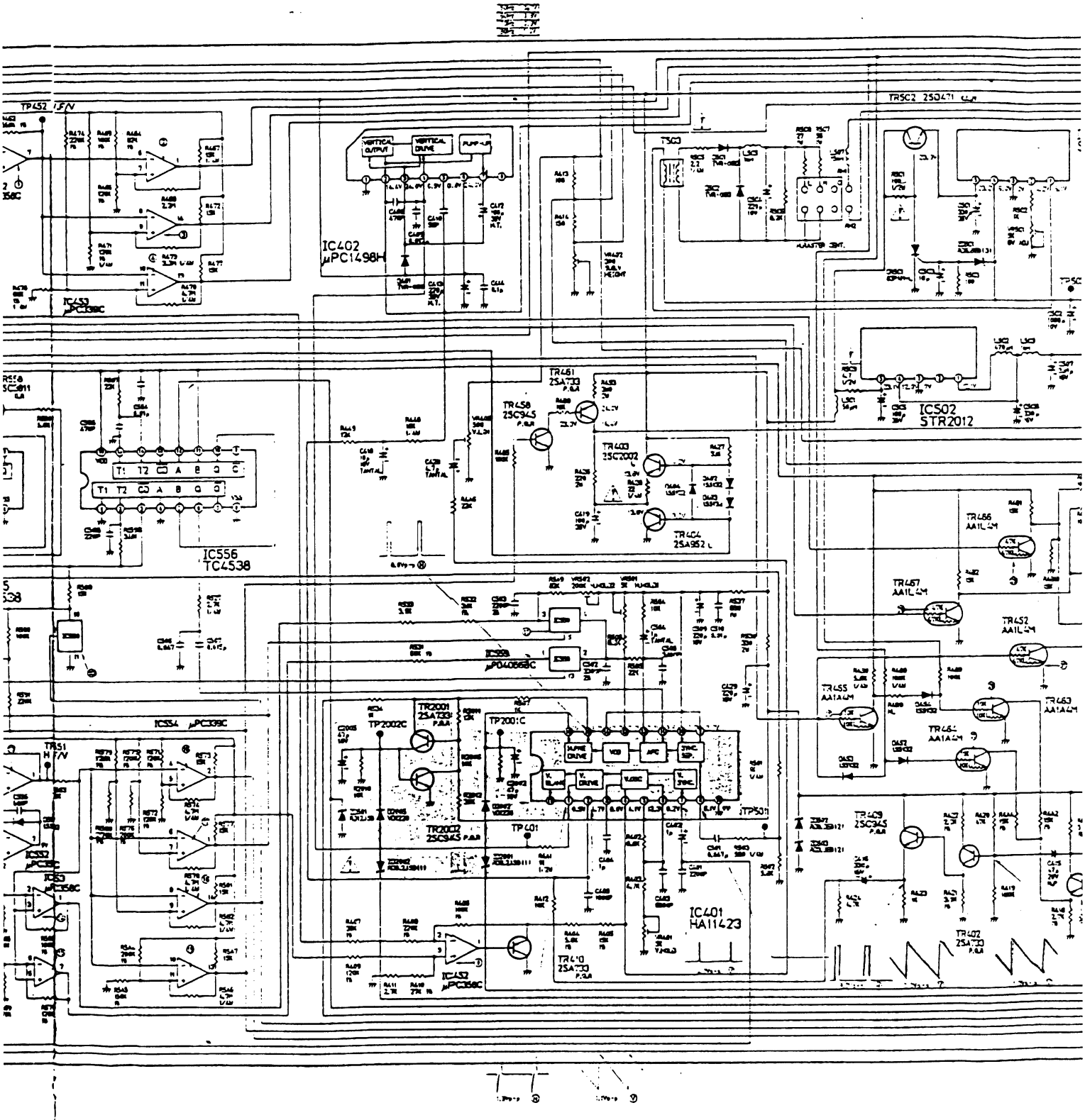


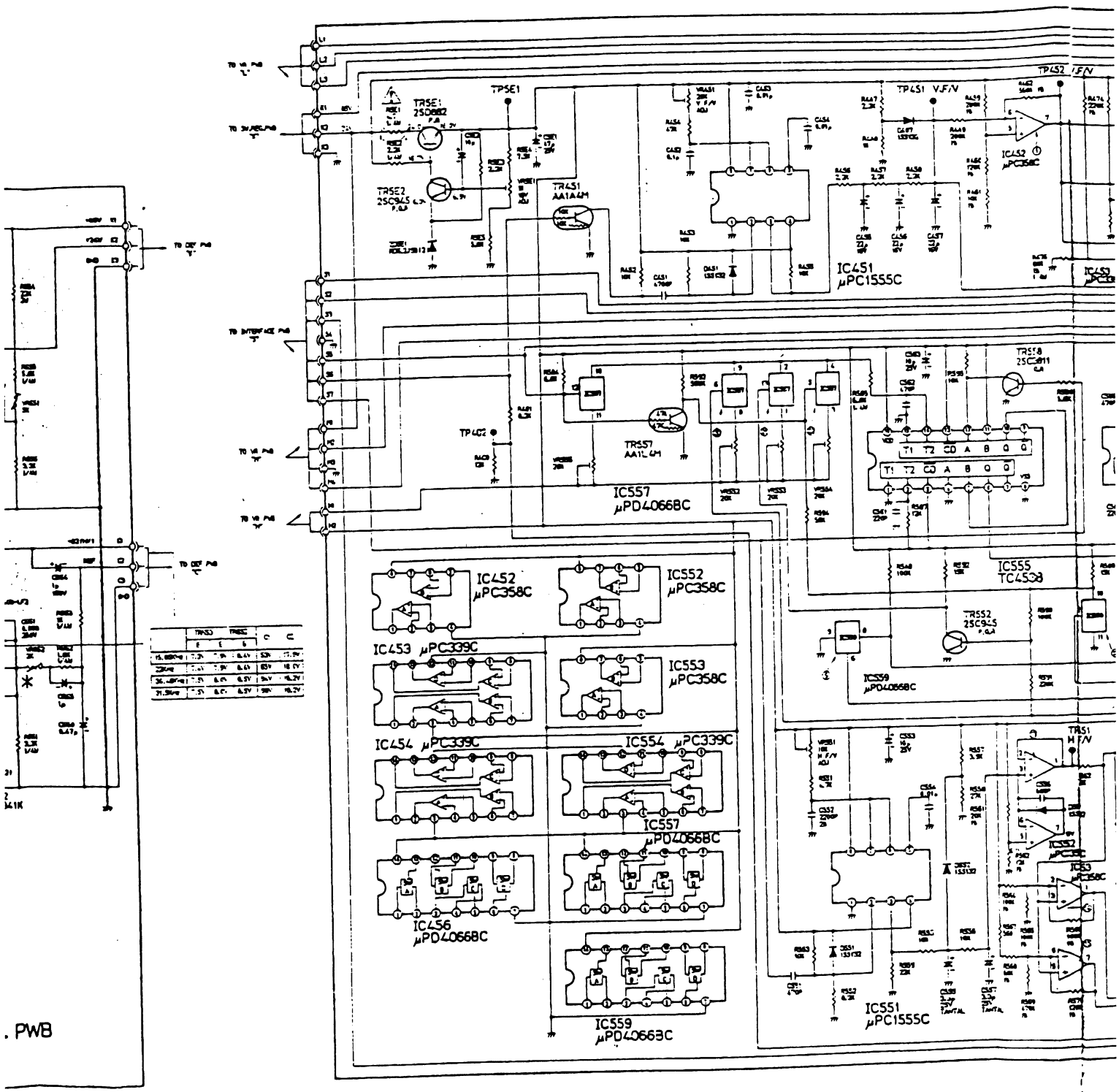
Sync. Polarity: Negative

PRESET TIMING

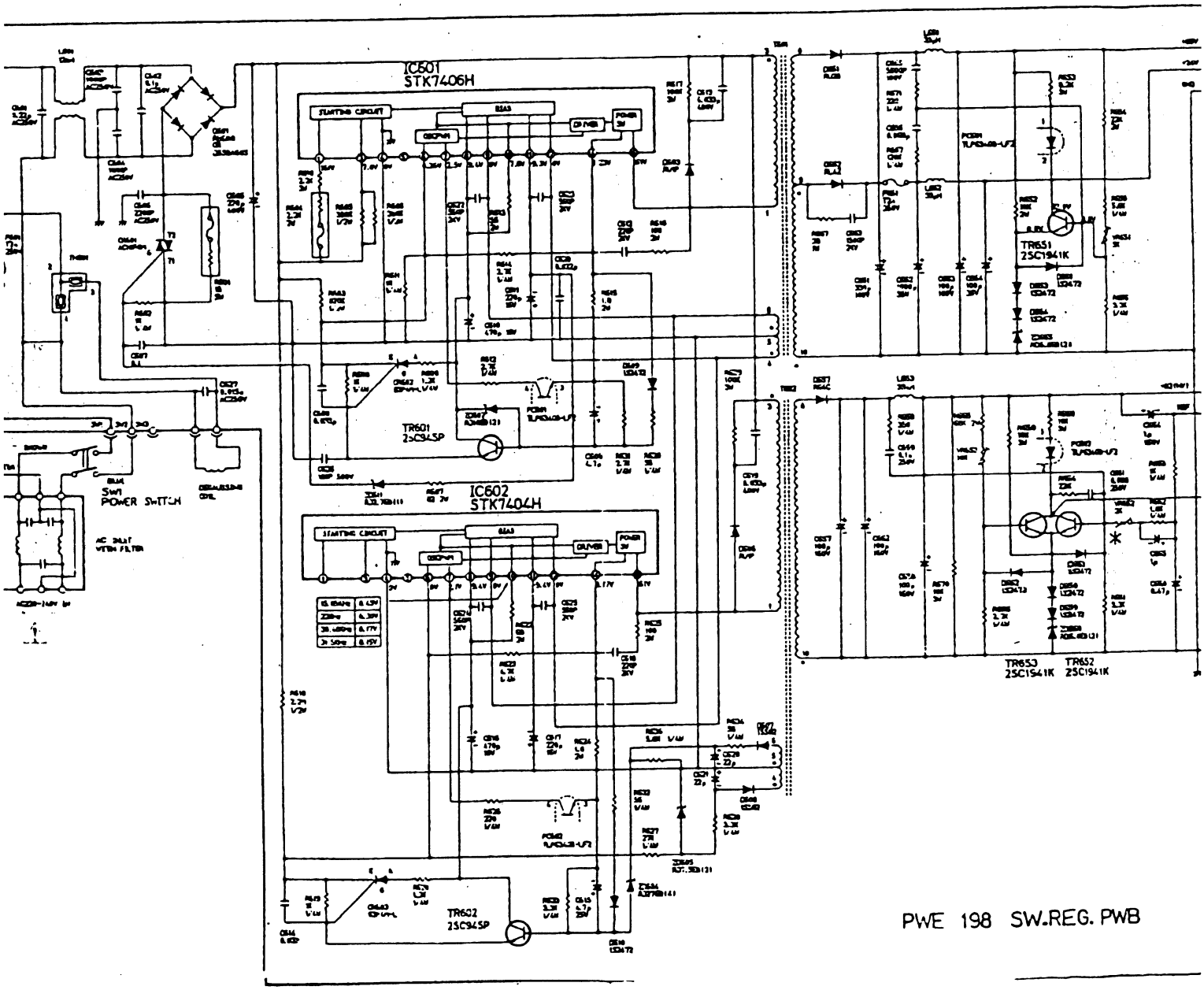
	CGA COMPATIBLE	EGA COMPATIBLE	PGC COMPATIBLE	VGA/MCGA COMPATIBLE		
fH	15.85kHz	22kHz	30.48kHz	31.5kHz		
A μs	63	45.5	33	31.77		
B μs	4.2	4.9	4.5	3.77		
C μs	7.2	1.6	2.8	1.89		
D μs	45	39	25.6	25.17		
E μs	6.6	0	0.1	0.94		
fv	61 Hz	60 Hz	60 Hz	70Hz		60Hz
O ms	16.4	16.68	16.6	14.27	14.27	16.68
P ms	00.75	0.6	0.07	0.064	0.064	0.064
Q ms	1.525	0.08	2.12	1.88	1.08	1.02
R ms	12.6	16	13.05	11.126	12.716	15.246
S ms	2.2	0	1.36	1.2	0.41	0.35
REMARKS	SEPARATE SYNC. H. SYNC. POSITIVE V.SYNC. POSITIVE	SEPARATE SYNC. H. SYNC. POSITIVE V. SYNC. NEGATIVE	H/V COMPOSITE SYNC.	SEPARATE SYNC. H. SYNC. POSITIVE V. SYNC. NEGATIVE	SEPARATE SYNC. H. SYNC. NEGATIVE V. SYNC. POSITIVE	SEPARATE SYNC. H.SYNC. NEGATIVE V. SYNC. NEGATIVE


IC501
STR2005
IC502
STR2012
IC456
μPD40868C
IC454
μPC339C
T401
T501
T502
F.B.T
PWE 194
DEF PW8


IC402
μPC1498H
IC502
STR2012
IC556
TC4538
IC401
HA11423


TP5E1
TR5E1
2SD882
TR5E2
2SC945
TR451
AA1A4M
TP451 V.F/V
TP452 V.F/V
IC452
μPC358C
IC451
μPC1555C
TR558
2SC911
TP457
TR557
AA1L4M
IC557
μPD40668C
IC555
TC4538
TR552
2SC945
IC559
μPD40668C
IC452
μPC358C
IC552
μPC358C
IC453 μPC339C
IC553
μPC358C
IC454 μPC339C
IC554 μPC339C
IC557
μPD40668C
IC456
μPD40668C
IC559
μPD40668C
TR51
H.F/V
IC551
μPC1555C
. PWB

ODELS JC-1402HME/EE/N/R (DEF PWB)
CHMATIC DIAGRAM



PWE 198 SW.REG. PWB